

Onan

**Parts
Manual
NH
AUX
GenSet**

**Auxiliary Power Generators
For Truck Applications
6.5 kW Unit**



Onan Service Parts

**940-0224
3-91 (Spec P-R)
Replaces 10-84
Printed in U.S.A.**

SAFETY PRECAUTIONS

The following symbols are used in Onan manuals to alert users to the potentially dangerous conditions relating to maintenance of the equipment and replacement of parts. Please read and observe.

DANGER *This symbol warns of immediate hazards which will result in severe personal injury or death.*

WARNING *This symbol refers to a hazard or unsafe practice which can result in severe personal injury or death.*

CAUTION *This symbol refers to a hazard or unsafe practice which can result in personal injury or product or property damage.*

MODEL IDENTIFICATION

To avoid errors or delay in filling your parts order, always give the MODEL, SPEC NO., and SERIAL NO. from the Onan nameplate.

For handy reference, insert your nameplate information in the spaces below:

MODEL AND SPEC NO.

SERIAL NO.

PRODUCT SAFETY PRECAUTIONS

WARNING

Contact with USED ENGINE OILS has been identified by a United States federal agency and some USA state agencies as causing CANCER or REPRODUCTIVE TOXICITY. When checking or changing engine oils take all necessary precautions not to ingest, breathe the fumes or contact the used oil.

WARNING

Contact with ASBESTOS has been identified by a United States federal agency and some USA state agencies as causing CANCER or REPRODUCTIVE TOXICITY. When handling engine gaskets take all necessary precautions not to ingest, breathe or contact the dust from the gaskets! Use adequate ventilation and wear protective gloves, masks and clothing!

WARNING

Contact with BENZINE and LEAD, found in gasoline, fuel additives and solvents has been identified by a United States federal agency and some USA agencies as causing CANCER or REPRODUCTIVE TOXICITY. When checking, draining or adding gasoline and fuel additives, or using solvents take all necessary precautions not to ingest, breathe the fumes, or contact the liquids. Use adequate ventilation and wear protective gloves, masks and clothing!

Introduction

This Catalog applies to the Standard 6.5 NH Auxiliary Generator Set for Trucks. Parts are arranged in groups of related items. Each illustrated part is identified by a reference number corresponding to the same reference number in the parts list for that group. Parts illustrations are typical. Using the Model and Spec No. from the nameplate, select parts from this Catalog that apply to your set. Unless otherwise mentioned in the description, parts are interchangeable between models. Right and left sides are determined by facing the engine end (front) of the set.

Generator Set Data Table

MODEL AND SPECIFICATION NUMBER	ELECTRICAL DATA					
	TYPE	WATTS	VOLTS	HERTZ	WIRE	PHASE
6.5 NH-3CR/*	Remote	6500	120/240	60	**	Single
6.5 NH-FJ/*	Remote	6500	120/240	60	**	Single

* - The Specification letter advances (A to B to C, etc.) with manufacturing changes.

** - Set is reconnectible for 120 volt, 2 wire; 240 volt, 2 wire; or 120/240 volt, 3 wire service.

NOTE: The letter R in the Model and Spec denotes Electric Start with Start-Stop at both the Set and the Remote Control.

STANDARD PARTS SECTION

This section contains the parts used on standard generator sets.

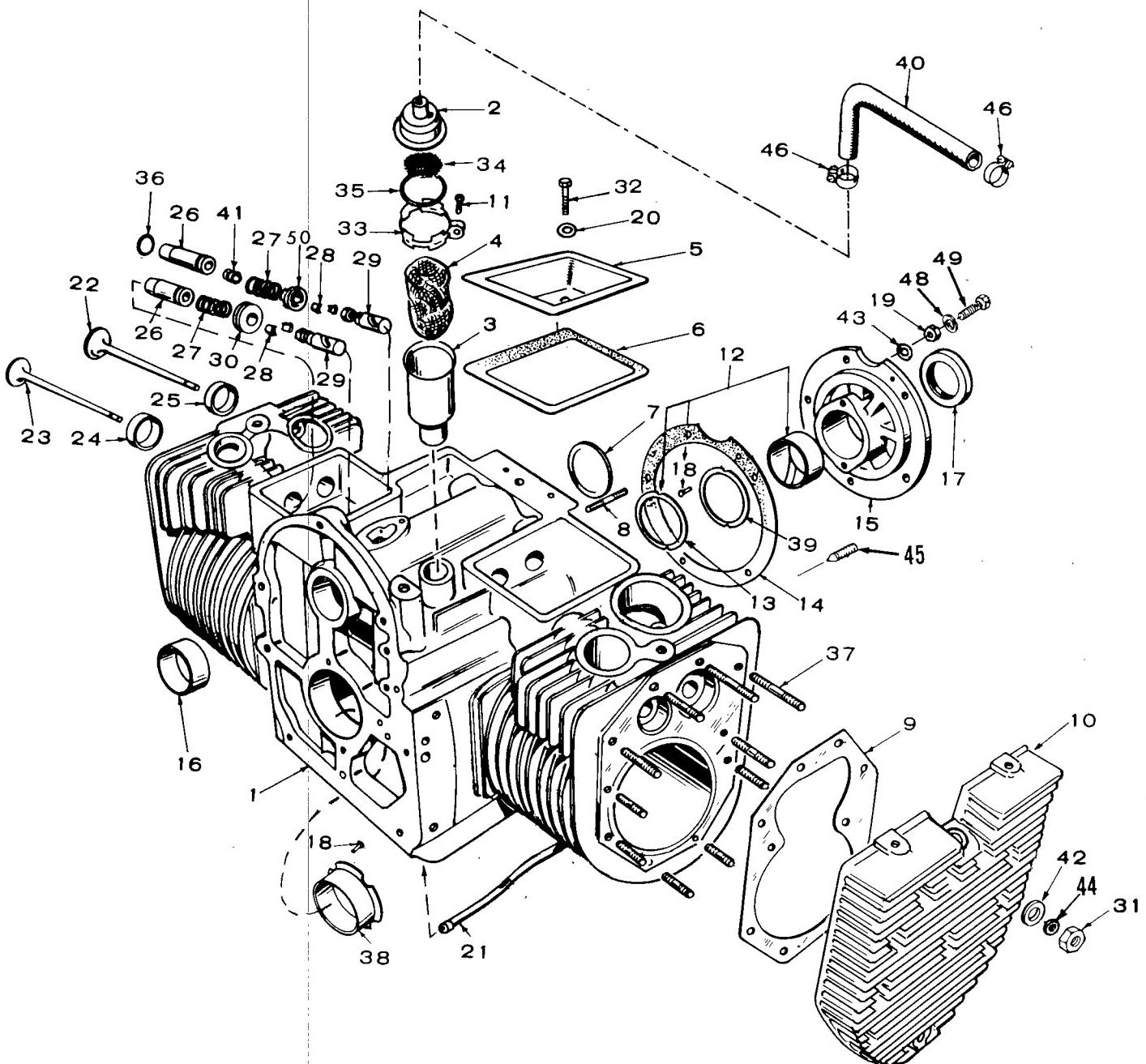
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Cylinder Block

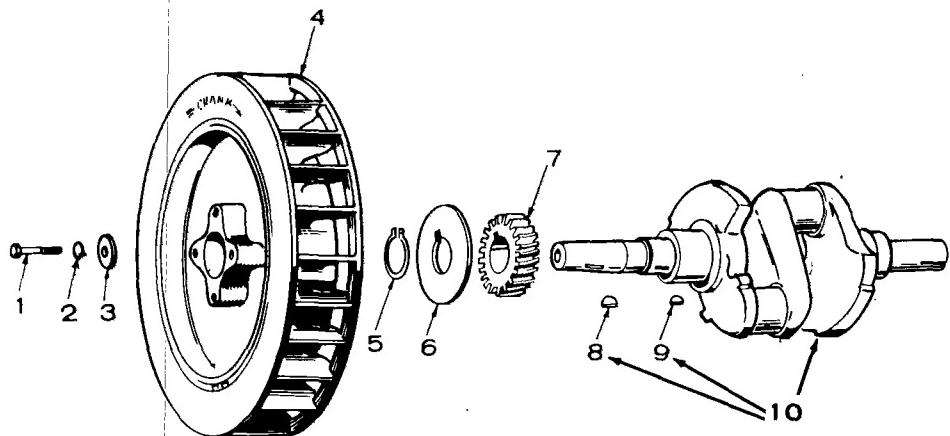


Cylinder Block

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION	
1	110-2340	1	Block, Cylinder (Includes Parts Marked *)	30	110-0904	4	Rotator, Valve Spec P	
2	123-0954	1	Cap and Valve, Breather		110-0904	2	Begin Spec R	
3	123-0952	1	*Tube, Breather	31	104-0091	20	Nut, Hex - Special	
4	123-1417	1	Baffle, Breather	32	800-0011	2	Screw, Cap - Hex Head (1/4-20 x 2" Lg)	
5	110-1624	2	Cover, Valve				Clamp, Loop - Breather Tube Cap	
6	110-3575	2	Gasket, Mounting - Valve Cover	33	123-0951	1	Screen, Tube - Breather	
7	517-0048	1	*Plug, Expansion				Seal, "O" Ring - Breather Tube	
8	520-0736	5	*Stud, Mounting - Bearing Plate	34	123-0958	2	*Gasket, Intake - Valve Guide	
9	110-2987	2	Gasket, Mounting - Cylinder Head	35	509-0117	1	Stud, Mounting - Cylinder Head	
10	110-3549	2	Head, Cylinder	36	110-0068	2	Spec P	
11	809-0035	1	Screw, Tapping - Round Head (#8 x 3/4" Lg)	37			3/8 x 1-7/8" Lg	
12			Bearing, Rear - Crankshaft		520-0717	8	3/8 x 2-9/16" Lg	
	101-0450	1	* Standard		520-0773	12	Spec R	
	101-0450-02	1	.002" Undersize		520-0919	8	3/8 x 2-19/32" (Install 4 Bottom Holes - RH, LH Heads)	
	101-0450-10	1	.010" Undersize		520-0876	4	3/8 x 2-3/4" (Install 2 Top Holes - RH, LH Heads)	
	101-0450-20	1	.020" Undersize		520-0918	8	3/8 x 3" (Install 4 Middle Holes - RH, LH Leads)	
13	104-0575	2	*Washer, Thrust - Crankshaft Bearing				Bearing, Sleeve - Flanged Crankshaft	
14	101-0782	1	*Gasket, Plate - Bearing	38			* Standard	
15	101-0439	1	*Plate, Bearing - Rear		101-0432	1	.002" Undersize	
16	101-0405	2	*Bearing, Camshaft		101-0432-02	1	.010" Undersize	
17	509-0041	1	Seal, Oil - Crankshaft		101-0432-10	1	.020" Undersize	
18	516-0072	4	*Pin, Stop - Bearing		101-0432-20	1	.030" Undersize	
19	104-0091	5	*Nut, Hex - Special		101-0432-30	1		
20	526-0063	2	Washer, Flat (Copper) (1/4" Screw)				Shim, Thrust - Crankshaft	
21	120-0680	1	*Tube, Oil - Crankcase	39	104-0776	AR	Tube, Breather	
22	110-1718	2	Valve, Intake	40	503-0857	1	Seal, Valve - Intake	
23	110-1761	2	Valve, Exhaust	41	509-0168	2	Washer, Flat (3/8" Screw)	
24			Insert, Seat - Valve Exhaust	42	526-0250	20	Washer, Flat (3/8" Screw)	
	110-1716	2	* Standard	43	526-0251	5	Washer, Lock - Compression (Special) - Begin Spec R	
	110-1716-02	2	.002" Oversize	44	851-0029	24	Screw, Socket - Set (3/8-16 x 5/8")	
	110-1716-05	2	.005" Oversize		45	803-0071	2	Clamp, Tube - Breather
	110-1716-10	2	.010" Oversize		46	503-0171	2	Washer, Lock (3/8") - Later Models
	110-1716-25	2	.025" Oversize		48	850-0050	5	Screw, Cap - Hex Head Flanged Head (Special) - Begin Spec R
25			Insert, Seat - Valve Intake		49		(3/8-16 x 1-1/4") - Later Models	
	110-1933	2	* Standard		800-0575	5	Washer, Retainer - Intake Valve Spring (Begin Spec R)	
	110-1933-02	2	.002" Oversize					
	110-1933-05	2	.005" Oversize					
	110-1933-10	2	.010" Oversize					
	110-1933-25	2	.025" Oversize					
26			*Guide, Valve		800-0051	5		
	110-3167	2	Exhaust					
	110-3168	2	Intake					
27	110-0539	4	Spring, Valve	50	110-0893	2		
28	110-0639	8	Lock, Spring - Valve					
29			Tappet, Valve					
	115-0006	4	Standard					
	115-0006-05	4	.005" Oversize					

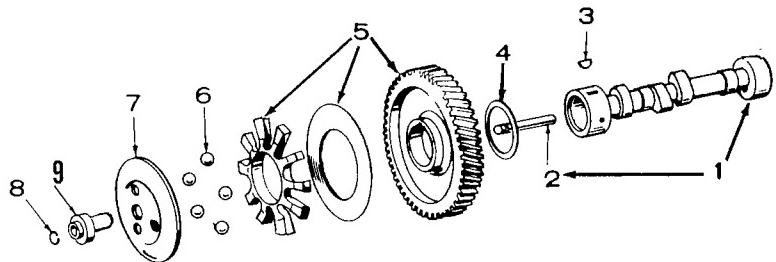
* - Parts Included in 110-2340 Cylinder Block.

Crankshaft and Flywheel



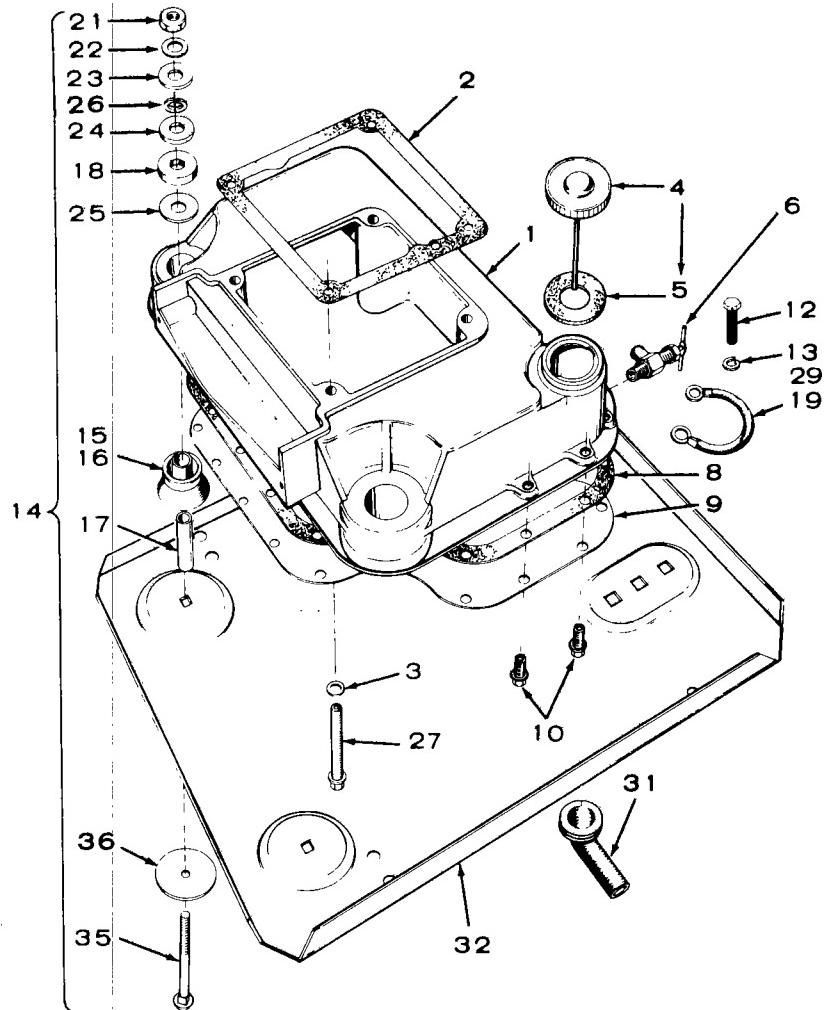
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	104-0170	1	Screw, Cap - Hex Head (Special)	5	518-0014	1	Ring, Retaining
2			Washer	6	104-0043	1	Washer, Gear (Special)
526-0356		1	Flat (7/16") Begin Spec R	7	104-0032	1	Gear, Crankshaft
850-0055		1	Lock - (7/16")	8	515-0263	1	Key Kit
3	526-0262	1	Washer, Flat (7/16")	9	515-0001	1	Key, Woodruff
4	134-4105	1	Flywheel (Includes Magnets)	10	104-1314	1	Crankshaft (Includes Keys)

Camshaft



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	105-0638	1	Camshaft (Includes Center Pin)	6	510-0015	10	Ball, Fly - Governor
2	150-0075	1	Pin, Camshaft	7	150-1520	1	Cup, Governor
3	515-0001	1	Key, Gear - Camshaft	8	150-0078	1	Ring, Retaining
4	105-0541	1	Washer, Thrust	9	150-1519	1	Hub, Cup - Governor
5	105-0332	1	Gear, Camshaft (Includes Plate and Spacer)				

Oil Base and Mounting Hardware



Oil Base and Mounting Hardware

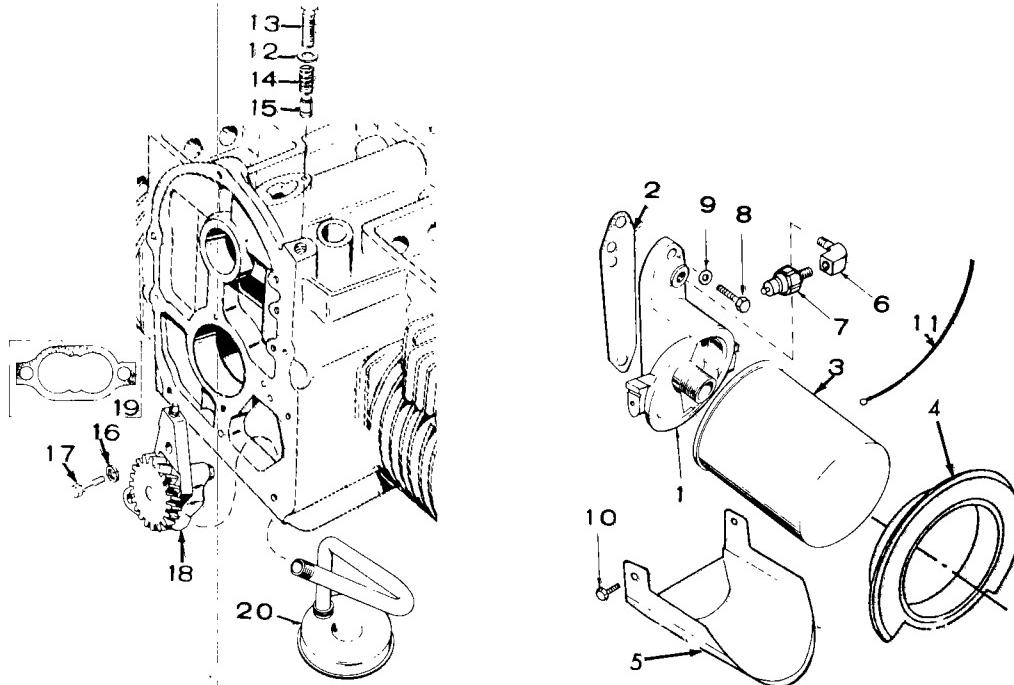
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	102-0957	1	Base, Oil (Includes Parts Marked *)	22			Washer, Lock - EIT (7/16")
2	102-1387	1	*Gasket, Base - Oil	850-0055	2	# Engine End	
3	526-0030	4	Washer, Flat (3/8")	856-0012	1	# Generator End (Left Side)	
4	123-1400	1	Cap and Indicator, Oil Fill	850-0055	1	# Generator End (Right Side)	
5	123-0191	1	Gasket, Cap - Oil Fill	850-0055	4	+ Engine and Generator Ends	
6	504-0092	1	Valve, Drain - Oil	526-0014	2	+#Washer, Flat (7/16")	
8	102-1275	1	*Gasket, Mounting - Oil Pan	526-0014	1	Engine End	
9	102-0889	1	*Pan, Base - Oil	526-0014	1	Generator End (Left Side)	
10	821-0018	20	*Screw, Cap - Hex Washer Head (1/4-20 x 5/8")	526-0198	1	Generator End (Right Side)	
12	800-0047	1	Screw, Cap - Hex Head (3/8-16 x 5/8")	526-0198	4	Washer, Flat (9/16")	
13	856-0010	2	Washer, Lock - EIT (3/8")	526-0198	1	# Engine End	
14			Package, Hardware Mounting - Side Mounted (Includes Parts Marked #)	526-0198	1	# Generator End (Left Side)	
	402-0477	1	Engine End - Use 402-0480	526-0286	1	# Generator End (Right Side)	
	402-0480	1	Generator End (Left Side)	856-0016	1	+#Washer, Lock - EIT (5/8") -	
	402-0480	1	Generator End (Right Side)	800-0064	1	Right Side Generator End	
15	402-0283	2	#Cushion, Vibration - Engine End	850-0050	4	Screw, Cap - Hex Head (3/8-16 x 4-1/2")	
16			Cushion, Vibration - Generator End	337-0090	1	Washer, Lock - Spring (3/8")	
	402-0283	1	# Left Side	503-0568	1	Strap, Ground	
	402-0283	1	# Right Side	403-1836	1	Hose, Drain - Oil	
	402-0284	4	+ Engine & Generator Ends	403-1484	1	Plate, Mounting	
17			+#Spacer, Sleeve	35		Side Mounted	
	402-0290	2	Engine End	816-0206	2	Over the Rails	
	402-0290	1	Generator End (Left Side)	816-0206	1	Bolt, Carriage (7/16-14 x 3-1/2")	
	402-0290	1	Generator End (Right Side)	816-0206	1	# Engine End	
18			+#Snubber	816-0207	1	# Generator End (Left Side)	
	402-0282	2	Engine End	816-0207	4	# Generator End (Right Side)	
	402-0282	1	Generator End (Left Side)	526-0038	1	+ 7/16-14 x 3-3/4" - Engine	
	402-0282	1	Generator End (Right Side)	526-0182	4	and Generator Ends	
19	336-3967	1	Lead, Ground			Washer, Flat	
21	862-0004	2	#Nut, Hex (7/16-14)			5/8" Screw	
	862-0004	1	Engine End			1/2" Screw - Engine and	
	862-0004	1	Generator End (Left Side)			Generator Ends	
			Generator End (Right Side)				

* - Parts Included in 102-0957 Oil Base.

- Parts Included in Hardware Mounting Package.

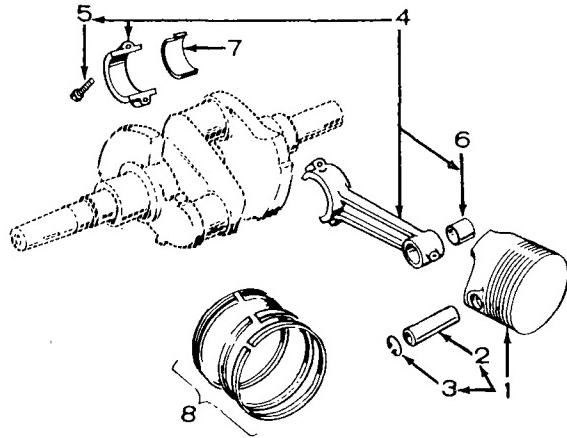
+ - Use With Ground Strap.

Oil System



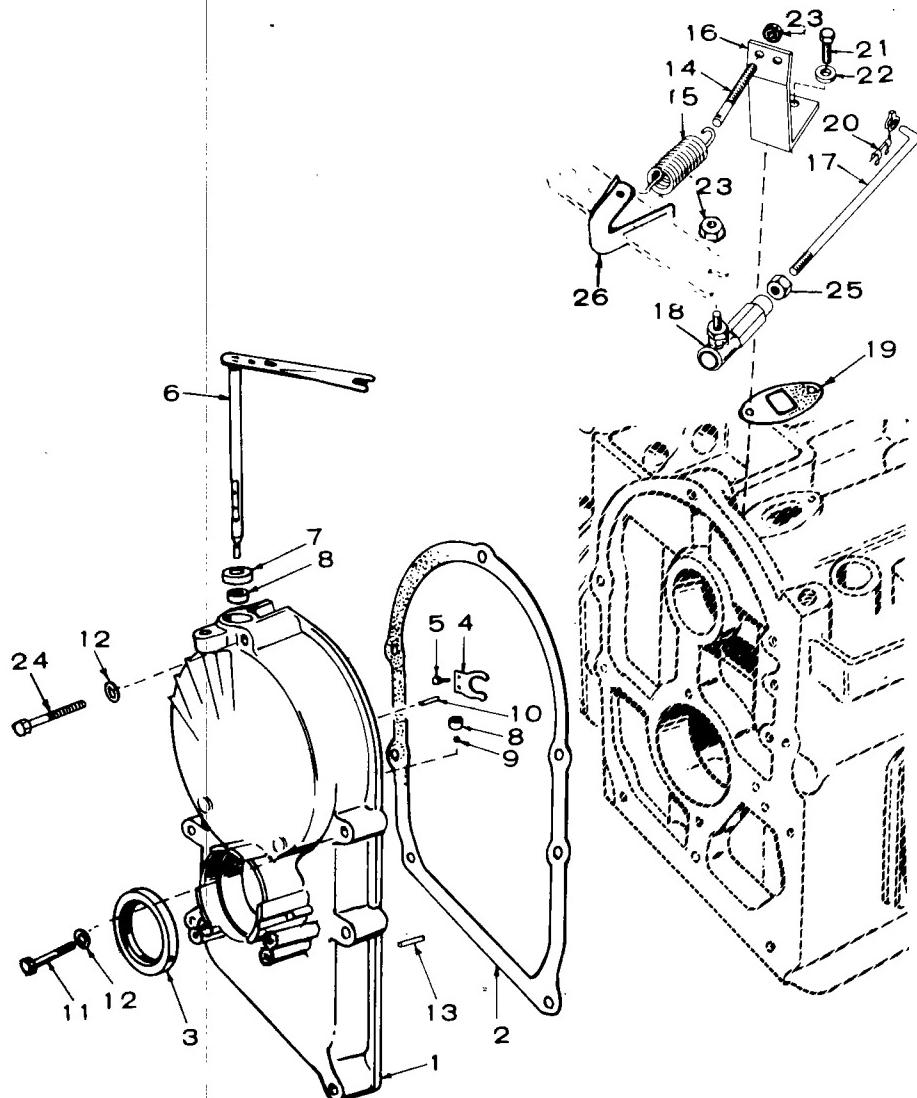
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	122-0320	1	Adapter, Filter - Oil	12	526-0066	1	Washer, Flat - Copper (3/8" Screw)
2	122-0774	1	Gasket, Mounting - Oil Filter Adapter	13	801-0050	1	Screw, Cap - Hex Head (3/8-24 x 1")
3	122-0323	1	Filter, Oil - Spin-on	14	120-0140	1	Spring, Valve - Oil By-Pass
4	122-0502	1	Seal, Air - Oil Filter - Over the Rails Models	15	120-0398	1	Valve, By-Pass - Oil
5	122-0360	1	Drain, Filter - Oil	16	740-1004	2	Washer, Flat (M6)
6	502-0053	1	Elbow, Street - 45°	17	800-0007	2	Screw, Cap - Hex Head (1/4-20 x 1")
7	309-0319	1	Switch, Pressure - Low Oil	18	120-0491	1	Pump, Oil (Components Not Sold Separately)
8	800-0028	2	Screw, Cap - Hex Head (5/16-18 x 1")	19	120-0161	1	Kit, Gasket - Oil Pump
9	526-0065	2	Washer, Flat - Copper (5/16" Screw)	20	120-0413	1	Cup, Intake - Oil Pump (Includes Screw Pipe and Cup)
10	815-0194	2	Screw, Tapping - Hex Head (#10-32 x 3/8")				
11	336-7000	1	Lead, Electrical - Low Oil Pressure Switch - Use 4 Feet Bulk Wire				

Piston and Rod



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Piston and Pin Set (Includes Retaining Ring)	7	114-0188	4	Bearing, Half - Connecting Rod Standard
	112-0228	2	Standard		114-0188-02	4	.002" Undersize
	112-0228-05	2	.005" Oversize		114-0188-10	4	.010" Undersize
	112-0228-10	2	.010" Oversize		114-0188-20	4	.020" Undersize
	112-0228-20	2	.020" Oversize		114-0188-30	4	.030" Undersize
	112-0228-30	2	.030" Oversize	8	113-0203	2	Kit, Piston Ring Standard
	112-0228-40	2	.040" Oversize		113-0203-05	2	.005" Oversize
2	112-0069	2	Pin, Piston (Standard)		113-0203-10	2	.010" Oversize
3	518-0294	4	Ring, Retaining - Piston Pin		113-0203-20	2	.020" Oversize
4	114-0203	2	Rod, Connecting		113-0203-30	2	.030" Oversize
5	805-0010	4	Bolt, Place				
6	114-0036	2	Bushing, Pin - Piston				

Gearcase and Governor

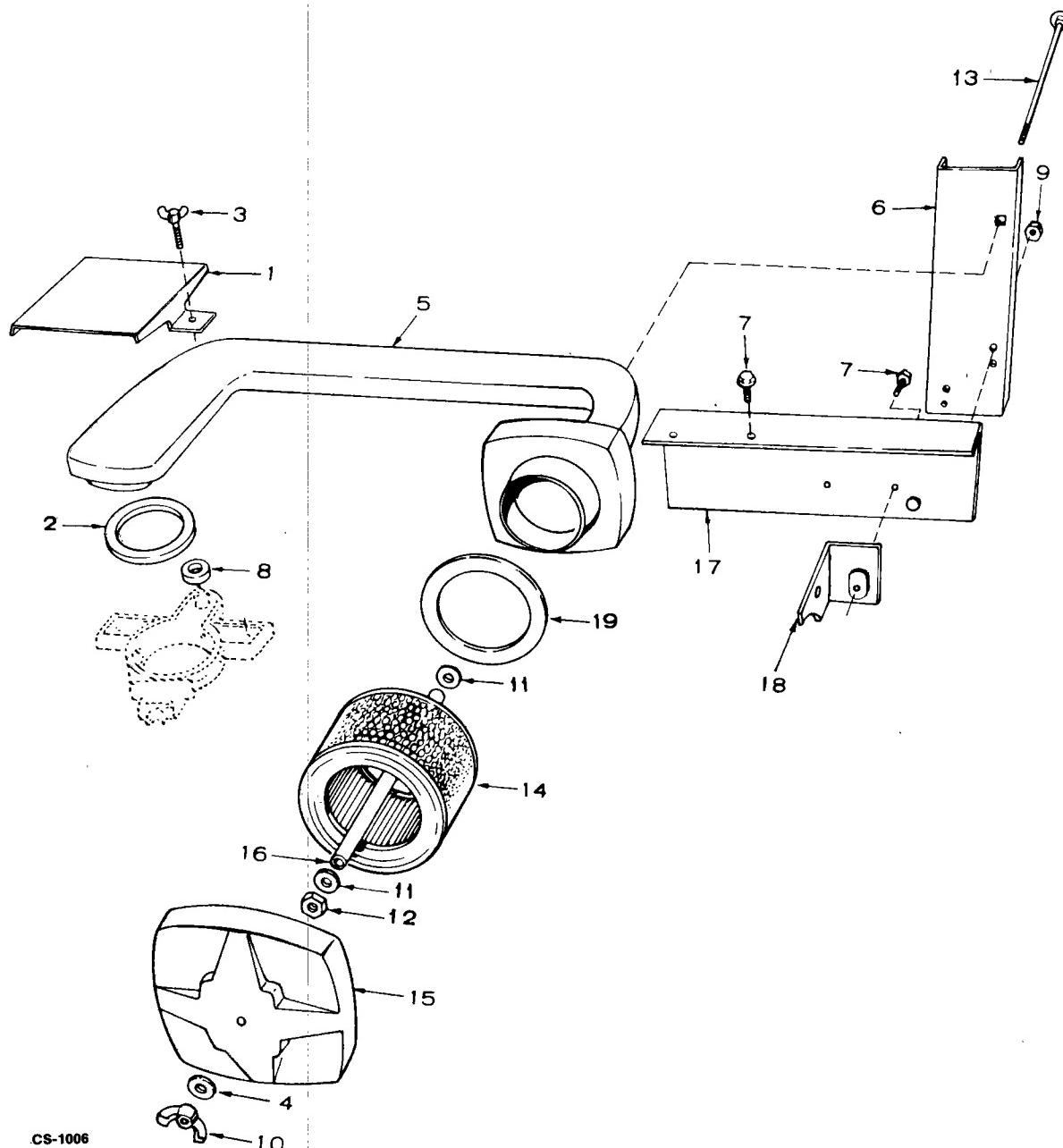


Gearcase and Governor

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	103-0641	1	Gearcase (Includes Parts Marked *)	16	150-1577	1	Bracket, Mounting - Governor
2	103-0810	1	Gasket, Mounting - Gearcase	17	150-0979	1	Rod, Governor Arm to Carburetor
3	509-0040	1	*Seal, Oil	18	150-0639	1	Ball, Joint
4	150-1187	1	*Yoke, Governor	19	149-0003	1	Gasket, Mounting - Governor
5	815-0046	2	*Screw, Machine - Pan Head (#8-32 x 3/8" Lg)	20	518-0004	1	Bracket
6	150-1542	1	*Arm and Shaft, Governor	21	800-0004	2	Clip, Retaining - Rod End
7	509-0008	1	*Seal, Oil				Screw, Cap - Hex Head -
8	510-0013	2	*Bearing, Needle				Governor Bracket Mounting
9	510-0014	1	*Bearing, Ball - Governor Shaft	22	526-0063	2	(1/4-20 x 5/8" Lg)
10	516-0130	1	*Pin, Stop - Governor Cup				Washer, Flat (Copper) -
11	800-0032	4	Screw, Cap - Hex Head - Gearcase Mounting (5/16-18 x 1-3/4" Lg)	23	870-0131	1	Governor Bracket Mounting (1/4" Screw)
12	526-0065	6	Washer, Flat (Copper) - Gearcase Mounting (5/16" Screw)	24	800-0034	1	Nut, Self-Locking (1/4-20)
13	516-0141	2	Pin, Alignment - Gearcase	25	870-0053	1	Screw, Cap - Hex Head -
14	150-0096	1	Stud, Adjustment - Speed	26	150-0678	1	Gearcase Mounting (5/16-18 x 2-1/4" Lg)
15	150-1612	1	Spring, Governor				Nut, Hex (#10-32)
							*Clip, Sensitivity

* - Parts Included in 103-0519 Gearcase.

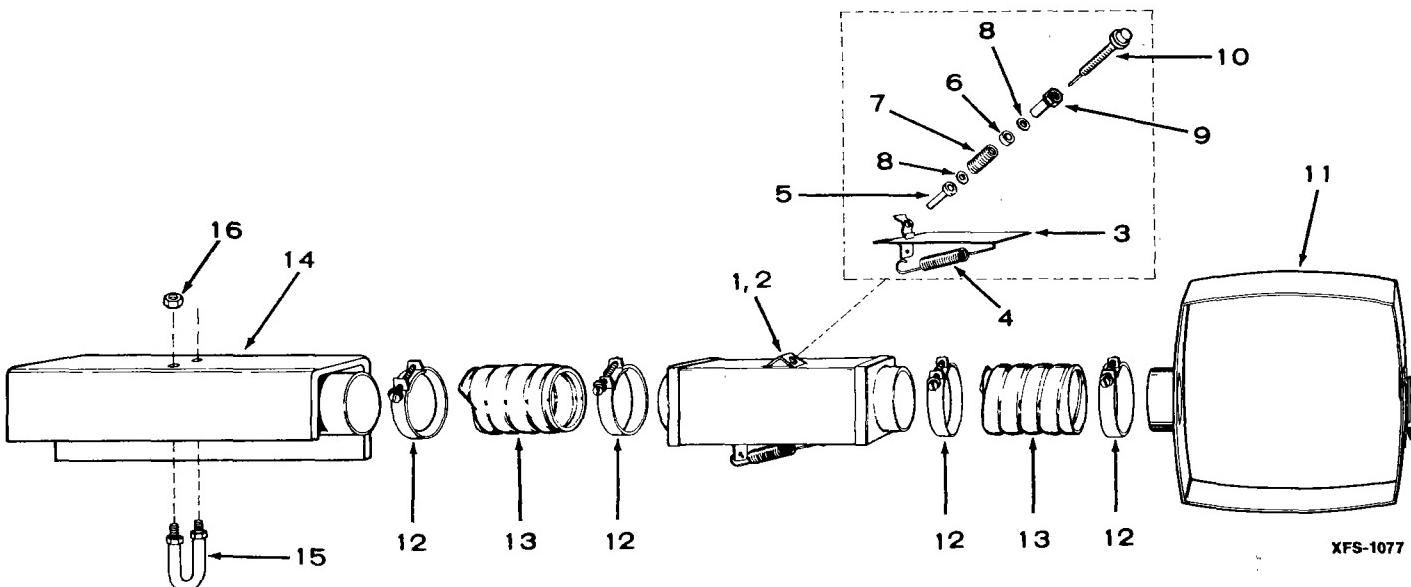
Air Cleaner



CS-1006

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	140-1520	1	Clamp, Duct - Air	10	865-0019	1	Nut, Wing (1/4-20)
2	140-1502	1	Seal, Air Duct to Adapter	11	526-0158	2	Washer, Flat
3	518-0390	2	Screw, Wing (1/4-20 x 3/4")	12	870-0212	1	Nut, Hex - Locking (1/4-20)
4	526-0021	1	Washer, Flat (1/4" Screw)	13	816-0070	1	Bolt, Carriage (1/4-20 x 6-1/2")
5	140-1503	1	Duct, Cleaner - Air	14	140-0495	1	Element, Cleaner - Air
6	140-1531	1	Bracket, Support - Air Duct	15	140-1504	1	Cover, Cleaner - Air
7	821-0009	6	Screw, Cap - Hex Head Locking (1/4-20 x 3/8")	16	140-1522	1	Spacer, Intake - Air
8	140-1521	1	Seal, Air Duct to Breather Port	17	140-1529	1	Bracket, Duct - Air Intake
9	870-0212	2	Nut, Hex - Locking (1/4-20)	18	140-1528	1	Brace, Duct - Air Intake
				19	140-1533	2	Seal, Element - Air Cleaner

Carburetor Air Preheater

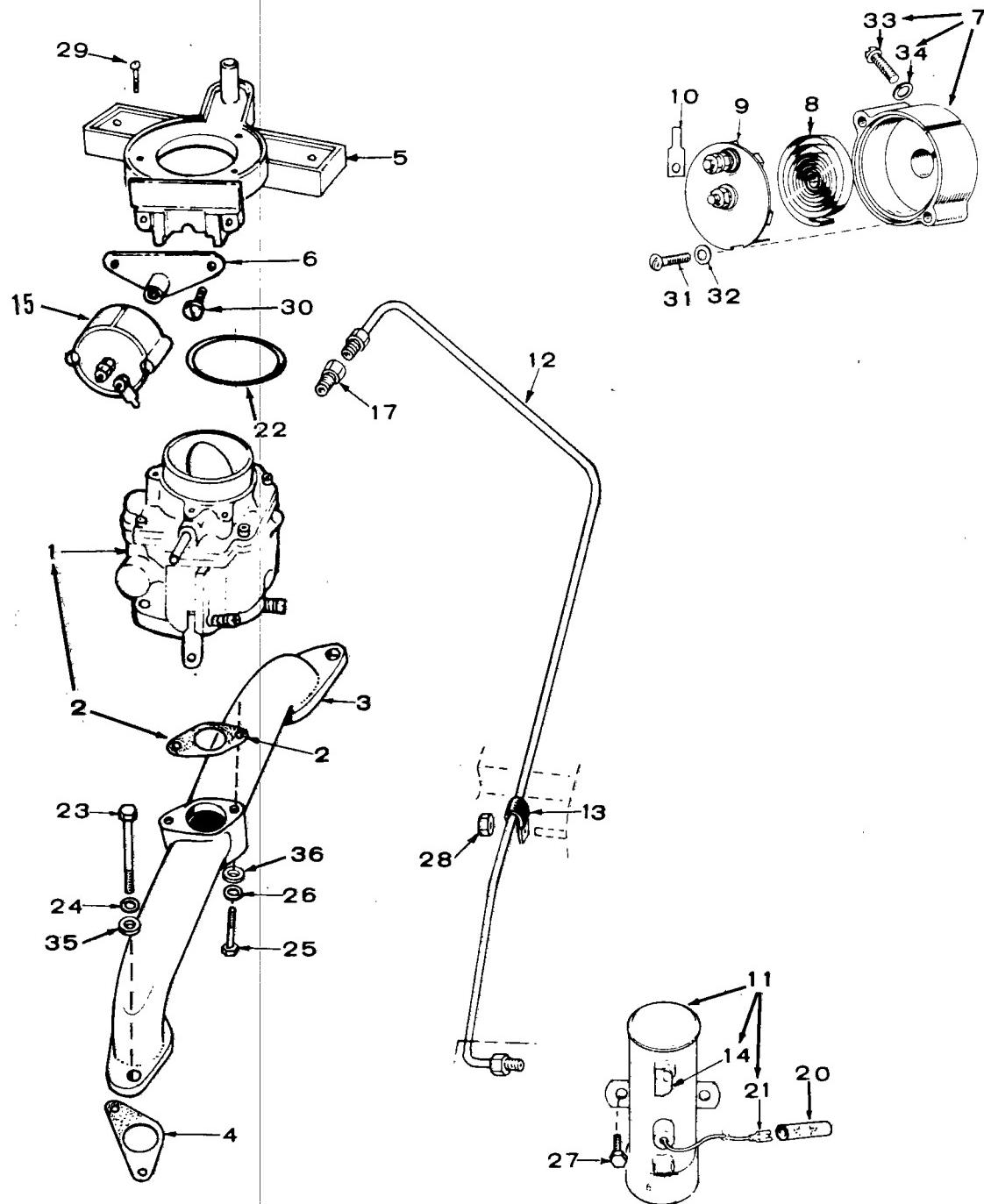


XFS-1077

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	140-0788	1	Control, Temperature - Air (Includes Parts Marked *)	12	503-0311	3	Clamp, Hose
2	140-0785	1	*Housing, Control	13	503-1056	2	Hose, Duct
3	140-0782	1	*Shutter		503-1075	2	Side Mounted (5.62" Long)
4	140-0786	1	*Spring, Return - Shutter	14	140-1733	1	Over the Rails (5.25" Long)
5	140-0784	1	*Plunger		140-1752	1	Bracket and Tube
6	140-0808	1	*Spacer, Vernatherm	15	140-1737	1	Side Mounted
7	140-0787	1	*Spring, Vernatherm				Over the Rails
8	518-0205	2	*Ring, Retaining	16	870-0257	2	U-Bolt, Bracket - Air Duct
9	870-0195	1	*Painut				Bracket
10	309-0181	1	*Vernatherm				Nut, Flange - Self Lock
11	140-1742	1	Wrapper, Cleaner - Air				(5/16-18)

* - Parts Included in 140-0788 Air Temperature Control.

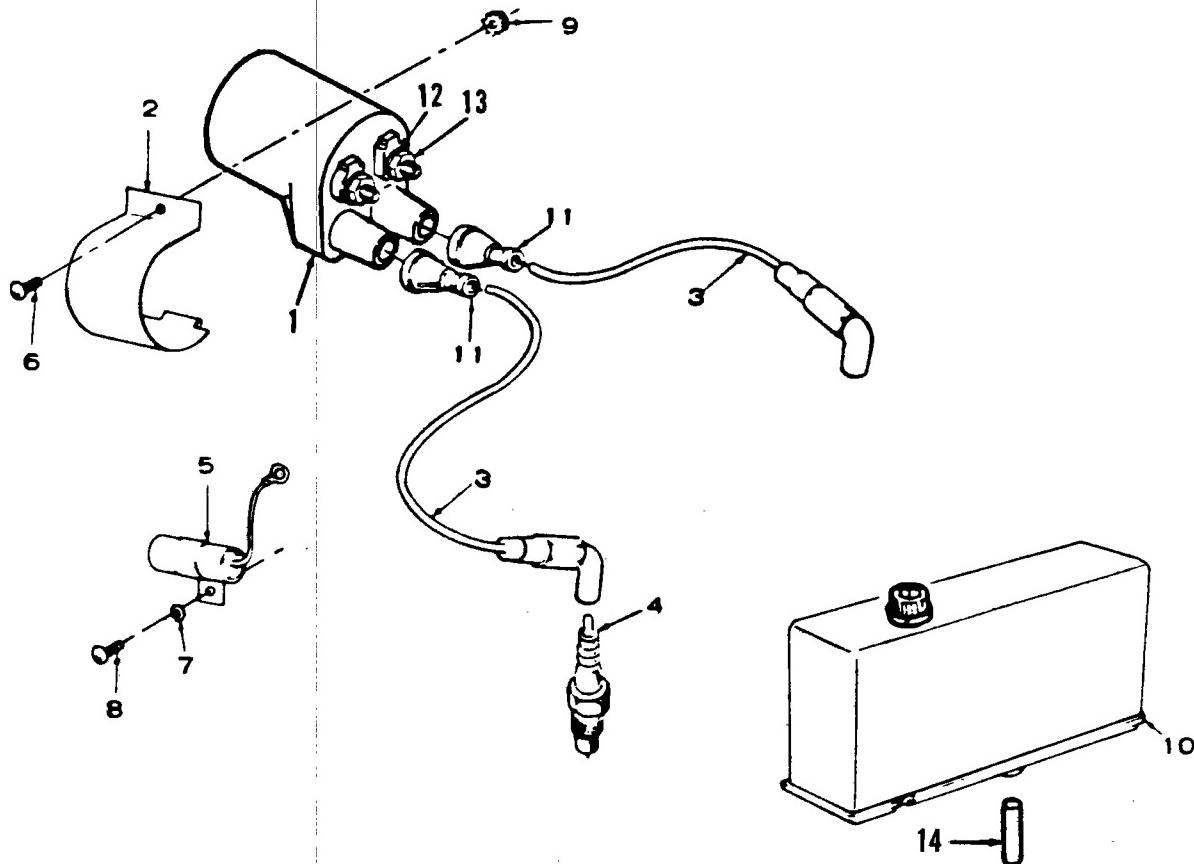
Fuel System (Gasoline)



Fuel System (Gasoline)

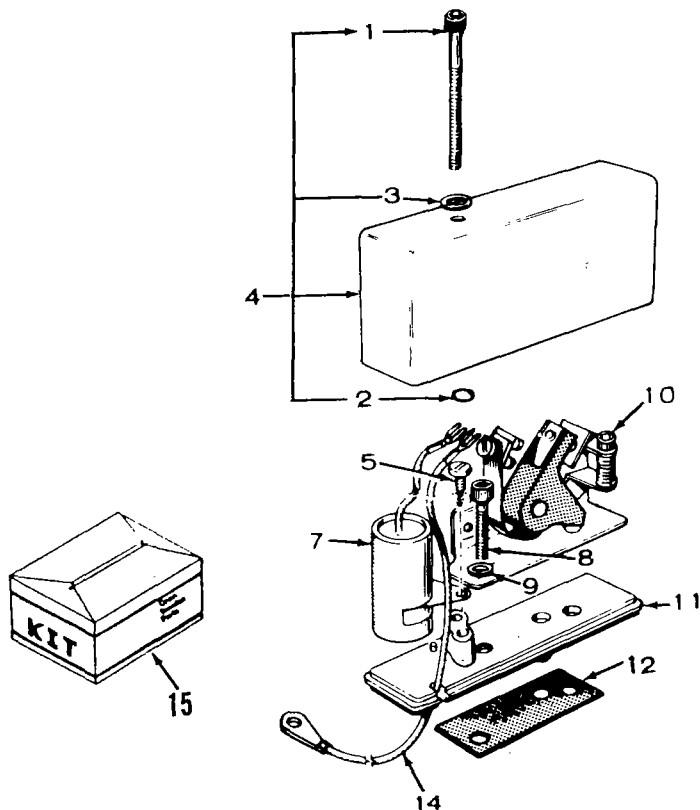
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Carburetor (Includes Mounting Gasket) (See Separate Page for Components)	21	332-1993	1	*Terminal, Lead - Fuel Pump
146-0308	1	1	Walbro	22	509-0145	1	Seal, O-Ring
146-0419	1	1	Nikki	23	800-0058	4	Screw, Cap - Hex Head (3/8-16 x 3")
2 154-0733	1	1	Gasket, Mounting - Carburetor	24	740-1006	4	Washer, Flat (M8)
3 154-2292	1	1	Manifold, Intake	25	800-0035	2	Screw, Cap - Hex Head (5/16-18 x 2-1/2")
4 154-1483	2	2	Gasket, Mounting - Intake Manifold	26	850-0045	2	Washer, Lock - Spring (5/16")
5 140-1492	1	1	Adapter, Duct - Air	27	821-0009	2	Screw, Cap - Hex Washer Head (1/4-20 x 3/8")
6 153-0499	1	1	Adapter, Choke	28	862-0015	1	Nut, Hex (5/16-18)
7 153-0058	1	1	Housing, Choke	29	804-0017	3	Screw, Cap - Socket Head (#10-32 x 1/2")
8 153-0017	1	1	Bi-Metal, Choke	30	815-0359	2	Screw, Tapping - Hex with ET (#10-32 x 7/8")
9 153-0114	1	1	Element and Cover, Choke	31	815-0285	2	Screw, Machine - Round Head with ET (#8-32 x 5/16")
10 332-0527	1	1	Terminal, Wire	32	526-0062	2	Washer, Flat - Brass (#10 Screw)
11 149-1828	1	1	Pump, Fuel - Electric (Includes Terminal and Elbow)	33	815-0110	1	Screw, Machine - Fillister Head (#10-32 x 7/8")
12 149-1554	1	1	Line, Fuel Pump to Carburetor	34	850-0030	1	Washer, Lock - Spring (#10)
13 518-0350	1	1	Clamp, Loop - Fuel Line (Insulated)	35	526-0030	4	Washer, Flat (3/8" Screw)
14 502-0002	1	1	*Elbow, Male - Inverted	36	526-0022	1	Washer, Flat (5/16" Screw)
15 153-0440	1	1	Housing, Choke (Includes Washer and Screw)				
17 502-0003	1	1	Connector, Male - Inverted				
20 332-1506	1	1	Connector, Lead - Fuel Pump				

Ignition System



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	166-0772	1	Coil, Ignition	8	815-0350	1	Screw, Tapping - Hex Washer Head (#10-32 x 3/8" Lg)
2	166-0588	1	Clamp, Mounting - Ignition	9	870-0131	1	Nut, Hex - W/ET (#10-32)
3	167-1602	2	Coil	10	160-1303	1	Box, Breaker - Complete (Includes Mounting Gasket) (See Separate Page for Components)
4	167-0291	2	Lead, Plug - Spark	11	160-0558	2	Nipple, Spark Plug
5	312-0027	1	Plug, Spark	12	850-2005	2	Washer, Flat (Metric)
6	815-0350	1	Condenser, Ignition	13	166-0554	2	Nut, Hex (Metric)
7	856-0003	1	Screw, Cap - Hex Washer Head (#10-32 x 3/8")	14	160-1151	1	Plunger, Points - Breaker
			Washer, Lock - External/Internal Condenser Mounting (#10)				

Breaker Box

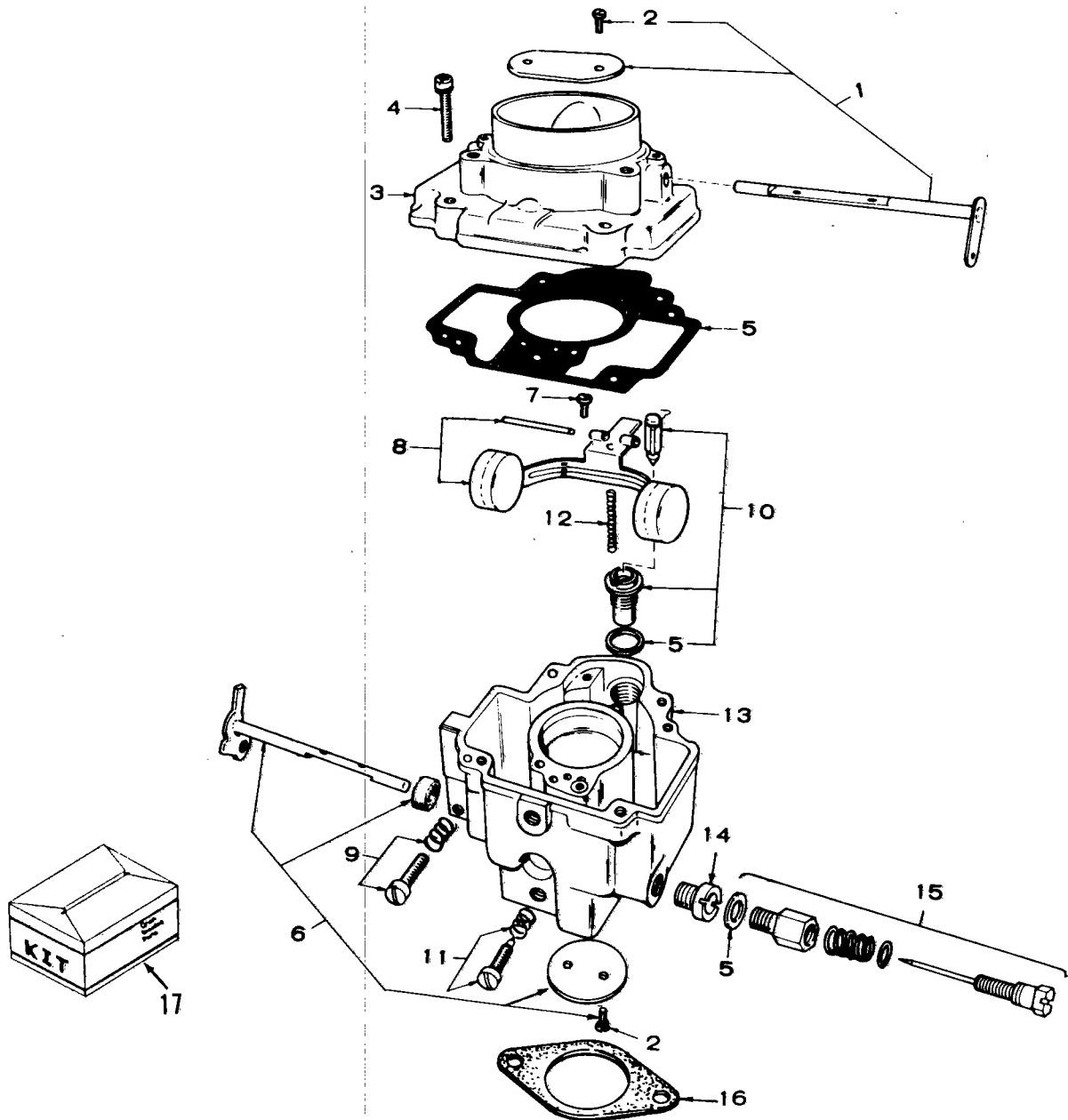


ES-1057

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	160-1303	1	Box, Breaker (Includes Parts Marked *)	8	802-0034	2	*Screw, Cap (1/4-20 x 3/4") - Socket Head
1	802-0022	1	*Screw, Cap - Hex Socket (#10-24 x 1-1/2")	9	850-0040	2	*Washer, Lock (1/4")
2	509-0065	1	*Retainer ("O" Ring)	10	160-1183	1	*Point Set, Breaker
3	526-0008	1	*Washer, Flat (#10 Screw)	11	160-1219	1	*Base, Breaker
4	160-1285	1	*Cover, Box - Breaker	12	160-1150	1	*Gasket, Box - Breaker
5	815-0358	1	*Screw, Cap (#8-32 x 5/16") - Slotted	14	336-2378	1	Lead, Breaker Box to Coil
7	312-0246	1	*Condenser	15	160-1311		Kit, Tune Up (Includes Points and Condenser)

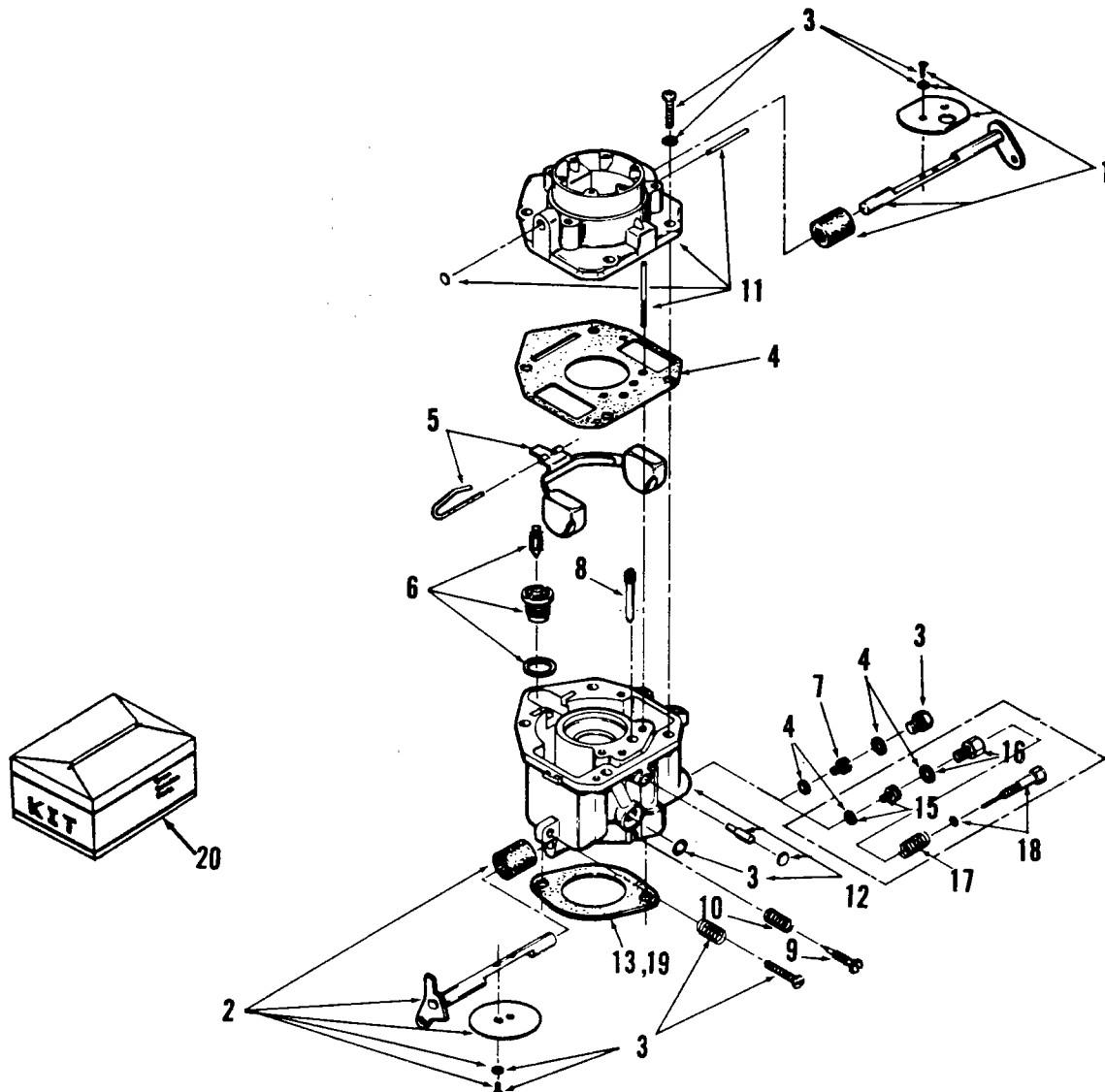
* - Parts Included in 160-1303 Breaker Box.

Carburetor Components (Adjustable Main Jet) (Gasoline)
Walbro



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	146-0308	1	Carburetor, Complete (Includes Mounting Gasket)	9	146-0261	1	Kit, Screw - Idle Speed Adjusting
1	146-0265	1	Kit, Shaft - Choke	10	146-0289	1	Kit, Valve and Seat
2	146-0142	4	Screw, Mounting - Valve	11	146-0209	1	Kit, Needle - Idle
3	146-0247	1	Intake, Air (Not Sold Separately)	12	146-0208	1	Spring, Buoyancy
4	146-0220	4	Screw, Body to Intake	13	146-0243	1	Body (Not Sold Separately)
5	146-0267	1	Kit, Gasket	14	146-0248	1	Jet, Power
6	146-0222	1	Kit, Shaft - Throttle	15	146-0248	1	Kit, Needle - Power
7	146-0262	1	Screw, Pin - Lever	16	154-0733	1	Gasket, Mounting - Carburetor
		1	Kit, Float	17	146-0290	1	Kit, Repair

Carburetor Components
Nikki
(Gasoline)

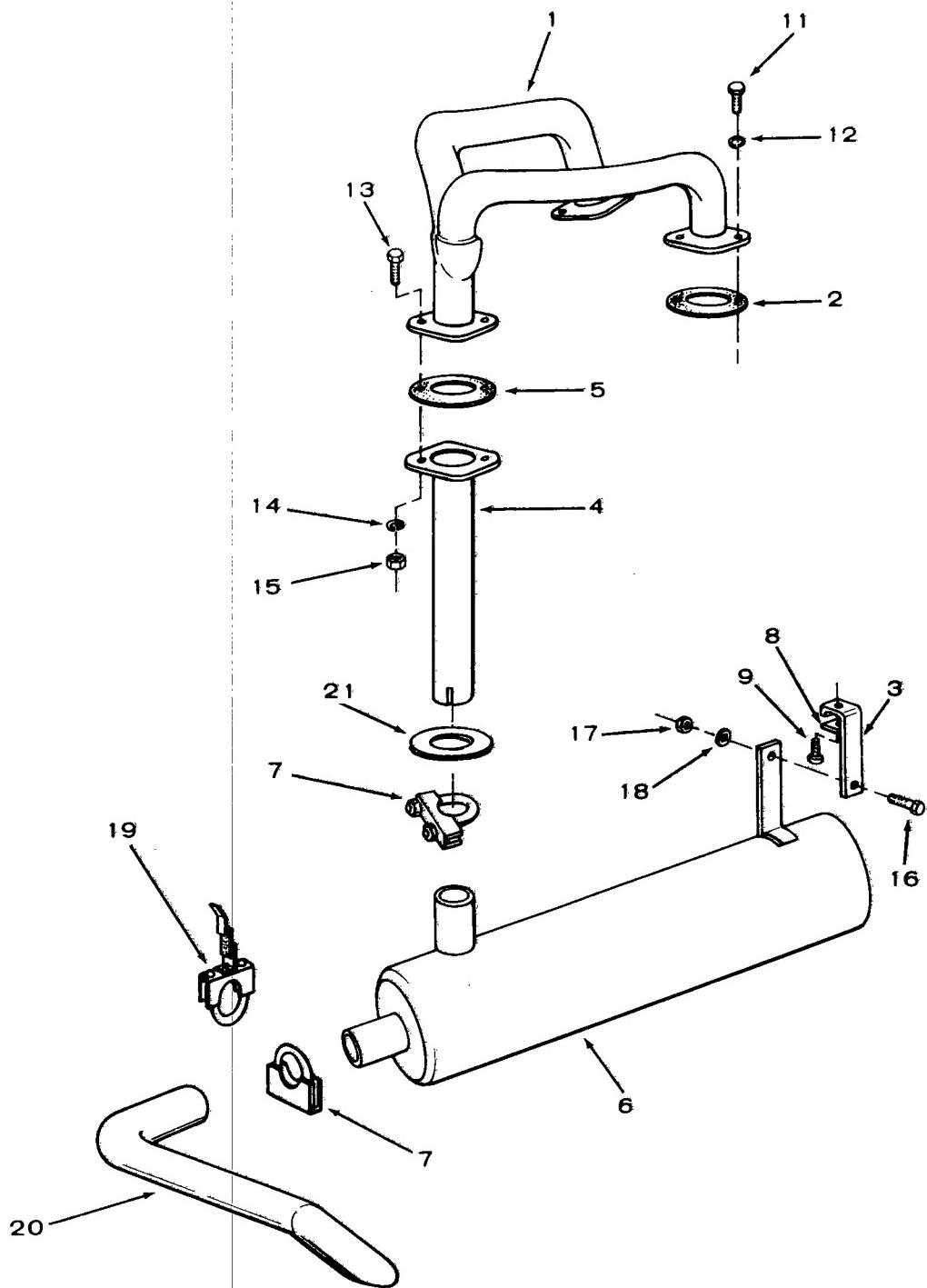


FS-1440

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	146-0419		Carburetor, Complete (Includes Mounting Gasket)	11		1	Intake, Air (Not Sold Separately)
1	146-0417	1	Kit, Shaft - Choke	12		1	Body (Not Sold Separately)
2	146-0418	1	Kit, Shaft - Throttle	13	154-0733	2	*Gasket, Mounting - Carburetor
3	146-0498	1	*Kit, Screw and Plug	15	146-0343	1	Jet, Power (Includes Gasket)
4	146-0326	1	*Kit, Gasket	16	146-0340	1	Retainer, Needle - Power (Includes Gasket)
5	146-0325	1	Kit, Float	17	146-0341	1	Spring, Needle - Power
6	146-0329	1	*Kit, Valve and Seat	18	146-0342	1	Needle, Power (Complete)
7	146-0343	1	Jet, Power	19	145-0438	1	*Gasket, Mounting - Carburetor
8	146-0420	1	Jet, Idle	20	146-0356	1	Kit, Repair (Includes Parts Marked *)
9	146-0335	1	*Needle, Adjusting - Idle				
10	146-0331	1	*Spring, Needle - Idle Adjusting				

* - Parts Included in 146-0356 Repair Kit.

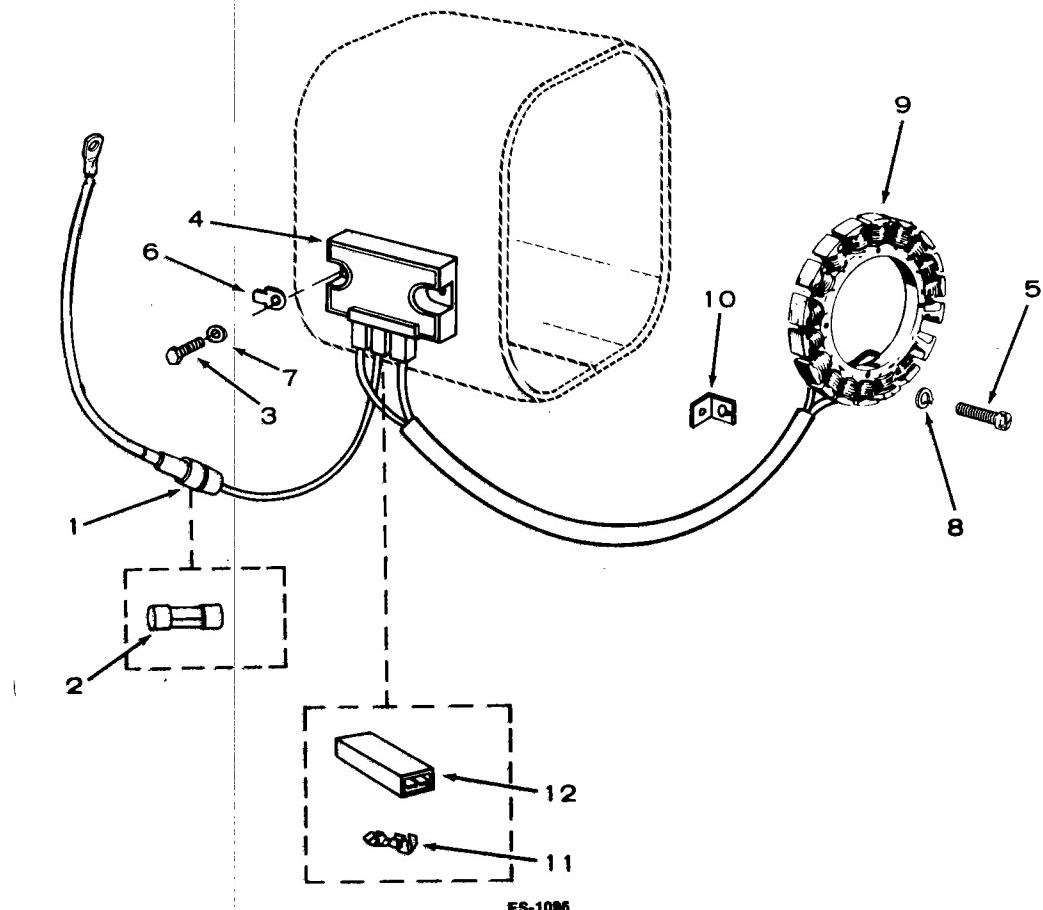
Exhaust System



Exhaust System

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	154-1967	1	Manifold, Exhaust	11	800-0512	4	Screw, Cap - Hex Head (5/16-18 x 1")
2	154-1482	2	Gasket, Manifold - Exhaust	12	850-0045	4	Washer, Lock - Spring (5/16")
3	155-1895	1	Clamp, Hanger	13	800-0030	2	Screw, Cap - Hex Head (5/16-18 x 1-1/4")
4	154-2143	1	Tube, Exhaust	14	850-0045	2	Washer, Lock - Spring (5/16")
5	154-2800	1	Gasket, Tube - Exhaust	15	862-0015	2	Nut, Hex (5/16-18)
6			Muffler, Exhaust For Units Mounted Over the Rails	16	800-0026	1	Screw, Cap - Hex Head (5/16-18 x 3/4")
	155-1906	1	For Side Mounted Units	17	870-0048	1	Nut, Self Lock (5/16-18)
7			Clamp, Muffler 1-1/2" Dia.	18	526-0113	1	Washer, Flat (5/16" Screw)
	155-1015	1	1-1/8" Dia.	19	155-1909	1	Hanger, Bracket
	155-1255	1		20	155-1904	1	Tube, Exhaust
8	155-1896	1	Hanger, Muffler	21	155-1907	1	Seal, Tube - Muffler Air - Over the Rails Units
9	821-0005	1	Screw, Cap - Hex Washer Head (#10-32 x 1/2")				

Flywheel Alternator (15 Ampere)

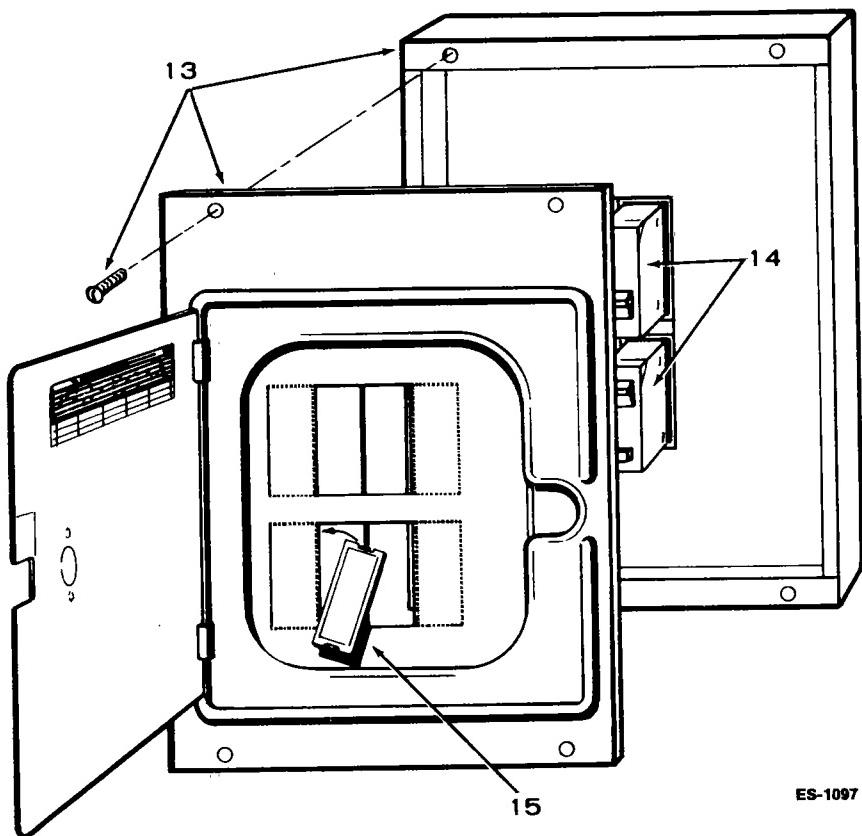


ES-1096

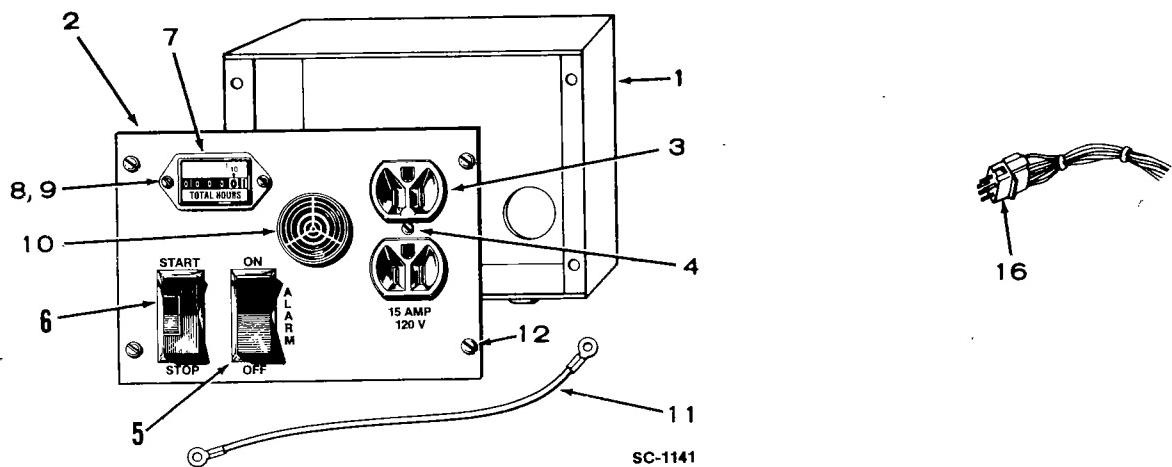
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	321-0242	1	Holder, Fuse (Includes Fuse)	7	526-0008	1	Washer, Flat (#10 Screw)
2	321-0165	1	Fuse (30 Amp, 32 Volt)	8	850-0030	3	Washer, Lock - Spring (#10)
3	815-0545	2	Screw, Machine - Hex Head W/ET (#10-32 x 1/2")	9	191-1346	1	Stator, Alternator (Includes Parts Marked *)
4	191-1351	1	Regulator, Voltage	10	167-0188	1	Clip, Lead - Alternator
5	813-0108	3	Screw, Machine - Round Head, Cross-Recessed (#10-32 x 1-1/2")	11	332-2423	3	*Terminal, Wire
6	332-0527	1	Terminal, Tab (1/4")	12	323-1216	3	*Body, Connector - Terminal

* - Parts Included in 191-1346 Alternator Stator.

Control (Remote)



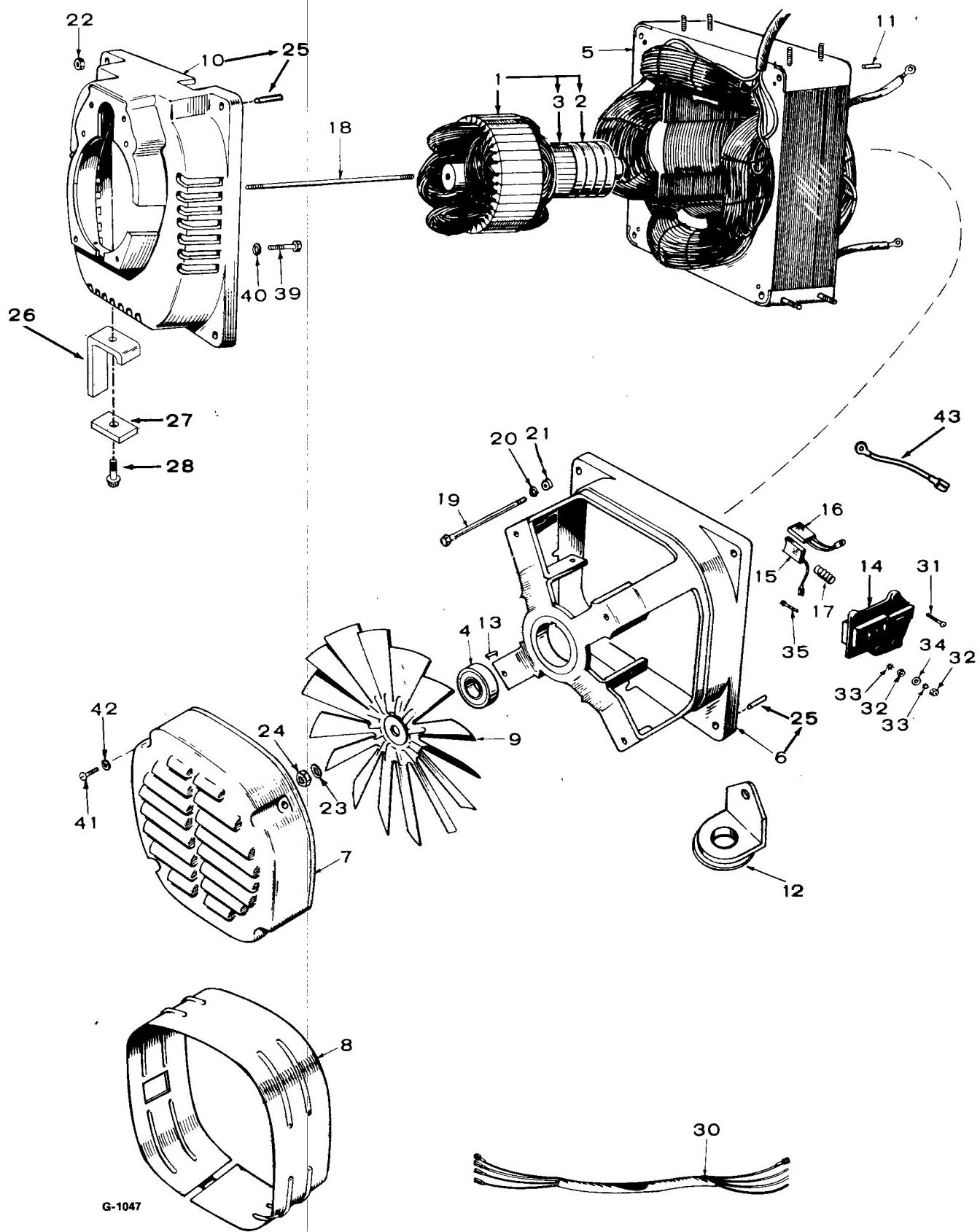
ES-1097



SC-1141

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	301-6206	1	Box, Control	10	333-0133	1	Alarm, Audible
2	301-6207	1	Panel, Control	11	336-7026	4	Lead, Wire - Use 4 Feet Bulk Wire
3	323-1104	1	Receptacle, Duplex (15 Amp, 120 Volt)	12	815-0350	4	Screw, Cap - Hex Washer Head (#10-32 x 3/8")
4	822-2030	1	Screw, Machine - Pan Head W/ET (#6-32 x 3/8")	13	320-0980	1	Box, Center - Load
5	308-0614	1	Switch, Rocker - Alarm (On-Off)	14	320-0976	1	Breaker, Circuit 15 Amp, 120 Volt (Ground Fault Interruptor)
6	308-0341	1	Switch, Rocker - SPST (Start-Stop)	320-0978		1	15 Amp, 120/240 Volt
7	302-0885	1	Meter, Hour	320-0979		1	20 Amp, 120/240 Volt
8	815-0385	2	Screw, Machine - Round Head (#6-32 x 1/2")	15	320-0982	1	Filler, Breaker
9	860-0005	2	Nut, Hex (#6-32)	16	338-1454	1	Harness, Wiring - Remote

Generator



G-1047

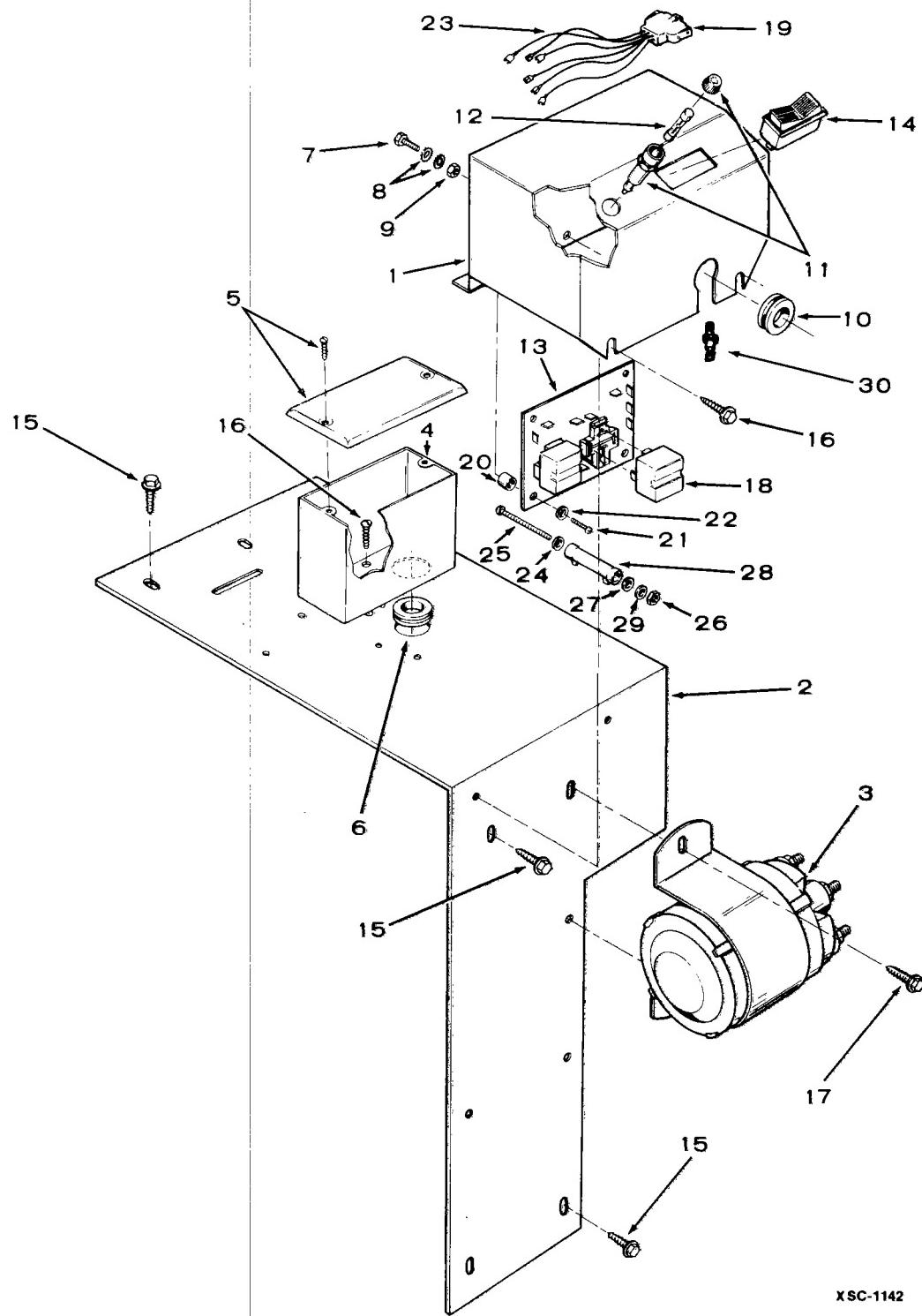
Generator

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	201-2503		Armature, Generator - 60 Hertz (Includes Parts Marked *)	22	862-0015	4	Nut, Hex (5/16-18)
2	204-0110	1	*Ring, Collector - Generator	23	850-0055	1	Washer, Lock - Spring (7/16")
3	203-0152	1	*Commutator, Generator	24	870-0203	1	Nut, Hex (7/16-20)
4	510-0047	1	*Bearing, Ball	25	516-0196	4	Pin, Alignment
5	220-1816	1	Stator, Generator	26	155-1895	1	Hanger, Exhaust - Side Mounted Units
6	211-0364	1	Bell, End - Generator (Includes Alignment Pins)	27	155-1896	1	Clamp, Hanger - Side Mounted Units
7	232-2107	1	Cover, Generator	28	821-0005	1	Screw, Hex Washer Head - Self-locking (10-32 x 1/2")
8	234-0642	1	Wrapper, Generator	30	338-0946	1	Harness, Wiring
9	205-0090	1	Fan, Generator	31	815-0359	15	Screw, Tapping - Hex Head (#10-32 x 7/8" Lg)
10	231-0164	1	Adapter, Generator to Engine (Includes Alignment Pins)	32	871-0010	8	†Nut, Hex - Brass (#10-32)
11	516-0182	8	Pin, Straight - Headless	33	853-0008	8	†Washer, Lock - External (#10)
12	402-0475	2	Support, Generator	34	526-0049	4	†Washer, Flat - Brass (#10)
13	232-0596	1	Clip, Retaining - Bearing	35	815-0341	4	†Screw, Machine - Hex Head Brass (#10-32 x 1" Lg)
14			Block, Brush (Includes Parts Marked †)	39	800-0050	4	Screw, Cap - Hex Head (3/8-16 x 1-1/4" Lg)
	212-0359	1	Bottom and Right Side Positions	40	850-0050	4	Washer, Lock - Spring (3/8")
	212-0360	2	Top and Left Side Positions	41	812-0156	2	Screw, Machine - Round Head (1/4-20 x 1-1/4" Lg)
15	214-0095	4	Brush, DC	42	850-0040	2	Washer, Lock - Spring (1/4")
16	214-0096	8	Brush, AC	43	336-1891	4	Lead, Block - Brush
17	212-1232	12	Spring, Brush				
18	520-0733	1	Stud				
19	800-0044	4	Screw, Cap - Hex Head (5/16-18 x 7-1/2" Lg)				
20	850-0045	4	Washer, Lock - Spring (5/16")				
21	526-0115	4	Washer, Flat (5/16" Screw)				

* - Parts Included in Armature.

† - Parts Included in Generator Brush Blocks.

Control

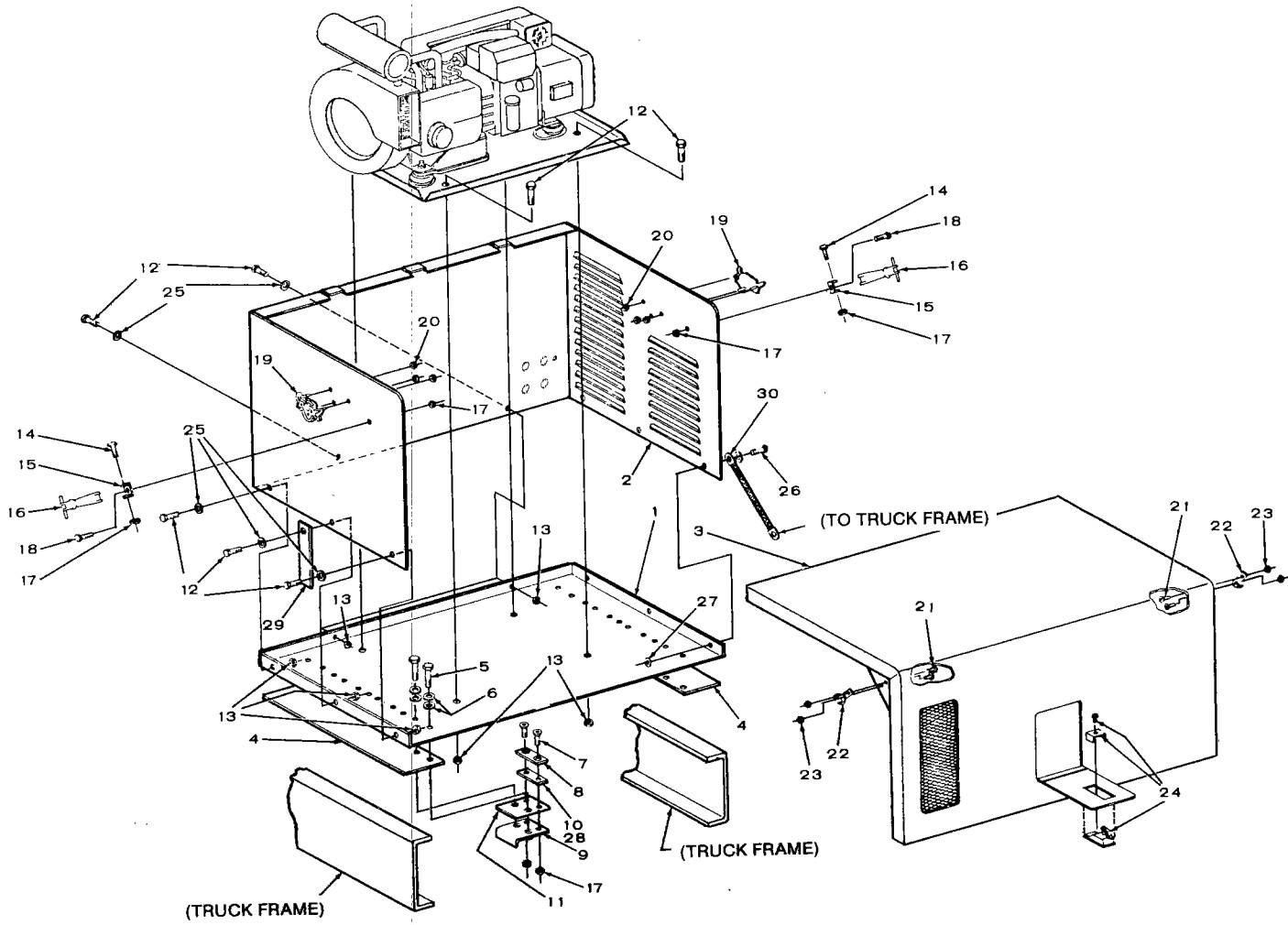


XSC-1142

Control

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	301-6197	1	Box, Control	17	821-0009	2	Screw, Cap - Hex Washer Head (1/4-20 x 3/8")
2	301-6227	1	Bracket, Mounting - Control	18	307-1899	2	Relay (SPDT)
3	307-1896	1	Relay, Solenoid - Start	19	323-1221	1	Connector, Cap
4	330-0074	1	Box, Outlet	20	870-0342	4	Spacer, Threaded
5	330-0004	1	Cover, Box - Outlet	21	812-0059	4	Screw, Machine - Round Head (#6-40 x 1/4")
6	508-0191	1	Grommet, Nylon				
7	821-0010	1	Screw, Cap - Hex Washer Head (1/4-20 x 1/2")	22	850-0020	4	Washer, Lock - Spring (#6)
8	856-0006	1	Washer, Lock - EIT (1/4")	23		1	Lead, Wire (4 Ft. Piece of Bulk Wire)
9	862-0001	1	Nut, Hex (1/4-20)	24	304-0580	1	Insulator, Resistor
10	508-0008	1	Grommet	25	812-0087	1	Screw, Machine - Round Head (#8-32 x 1-1/2")
11	321-0175	1	Holder, Fuse				
12			Fuse				
	321-0298	1	5 Amp, 250 Volt	26	870-0221	1	Nut, Hex W/ET (#8)
	321-0146	1	10 Amp, 32 Volt	27	508-0015	1	Washer, Fibre
13	300-2170	1	Board, Circuit - Printed	28	352-0161	1	Resistor (100-Ohm, 5 Watt)
14	308-0383	1	Switch, Push (SPDT)	29	526-0048	1	Washer, Flat (#8 Screw)
15	815-0350	2	Screw, Tapping - Hex Washer Head (#10-32 x 3/8")	30	357-0030	1	Rectifier, Silicon
16	815-0350	3	Screw, Tapping - Hex Washer Head (#10-32 x 3/8")				

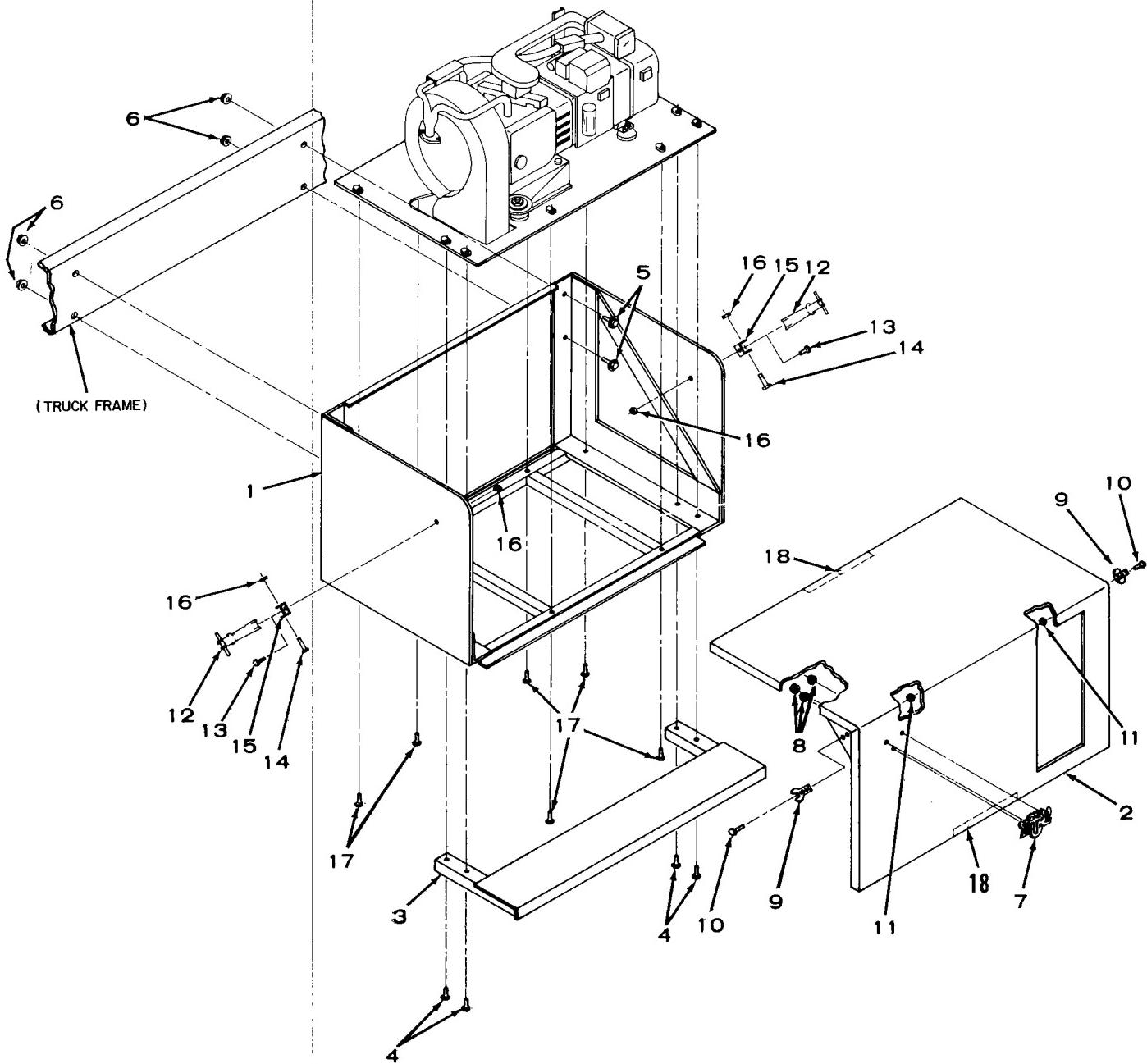
Housing (Over-the-Rails)



Housing (Over-the-Rails)

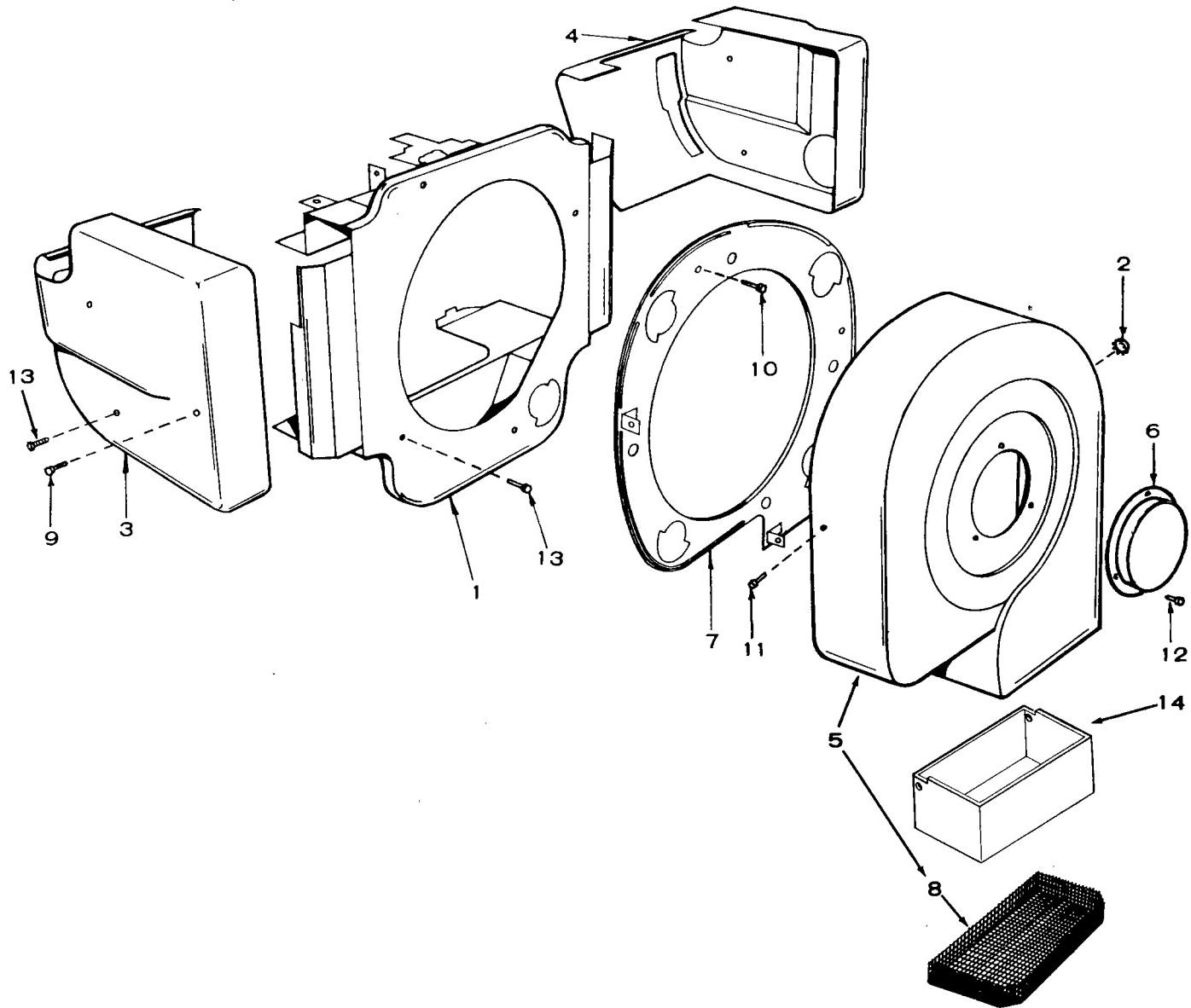
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	405-2842	1	Baseplate, Housing	16	406-0497	2	Handle, Latch
2	405-2840	1	Housing	17	870-0048	12	Nut, Lock (5/16-18")
3	405-2841	1	Cover	18	800-0026	2	Screw, Cap - Hex Head (5/16-18 x 3/4")
4	405-2906	2	Gasket, Mounting	19	99-1575	2	Nameplate (AUX)
5	800-0094	8	Screw, Cap - Hex Head (1/2-13 x 2")	20	870-0362	6	Nut, Self Threading (1/4")
6	851-0035	16	Washer, Conical (1/2")	21	815-0551	4	Screw, Cap - Flush Socket (#10-24 x 1/2")
7	815-0553	8	Screw, Cap - Flush Socket (5/16-18 x 1-1/2")	22	406-0496	2	Bracket, Latch
8	405-2847	4	Spacer, Clamp - Mounting	23	870-0364	4	Nut, Self Lock (#10-24)
9	405-2844	4	Clamp, Mounting	24	406-0401	1	Latch, Flush
10	405-2856	8	Spacer, Clamp - Mounting (1/4" Thk)	25	526-0026	8	Washer, Flat (3/8" Screw)
11	405-2902	4	Gasket, Clamp - Mounting	26	800-0051	1	Screw, Cap - Hex Head (3/8-16 x 1-1/4")
12	800-0050	11	Screw, Cap - Hex Head (3/8-16 x 1")	27	856-0010	1	Washer, Lock - EIT (3/8")
13	870-0368	12	Nut, Lock (3/8-16")	28	405-2901	8	Spacer, Mounting - Housing (1/16" Thk)
14	800-0033	2	Screw, Cap - Hex Head (5/16-18 x 2")	29	405-2904	1	Strap, Tether
15	406-0495	2	Bracket, Latch	30	337-0090	1	Strap, Electrical

Housing (Side Mounted)



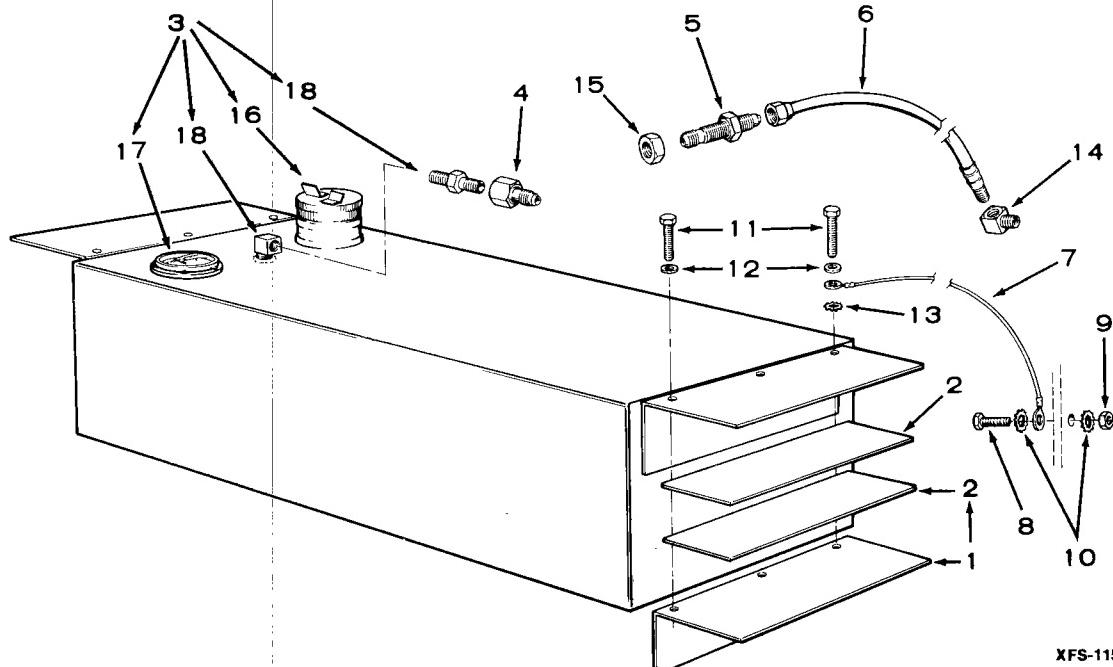
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	403-1835	1	Frame	11	870-0364	4	Nut, HWH (#10-24)
2	405-2801	1	Cover	12	406-0497	2	Handle, Latch
3	403-1793	1	Step, Truck	13	800-0026	2	Screw, Cap - Hex Head (5/16-18 x 3/4")
4	821-0030	4	Screw, Cap - HWH (3/8-16 x 1")	14	800-0033	2	Screw, Cap - Hex Head (5/16-18 x 2")
5	800-0560	4	Bolt, Cap - HWH (5/8-11 x 2") (Grade 8)	15	406-0495	2	Bracket, Latch
6	870-0363	4	Nut, HWH (5/8-11) (Grade 8)	16	870-0048	4	Nut, Hex - Self Lock (5/16-18)
7	99-1575	1	Nameplate (AUX)	17	821-0029	6	Screw, Cap - HWH (3/8-16 x 3/4")
8	870-0362	3	Nut, Tapping - Hex Head (1/4")	18	405-2805	2	Gasket, Isolator
9	406-0496	2	Bracket, Latch				
10	821-0001	4	Screw, Machine - Hex Head (#10-24 x .38")				

Air Housing



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	134-4095 134-4132	1 1	Housing, Blower Side Mounted Units Mounted Over the Rails	8	134-4316 134-2763	1 1	Guard, Scroll Wire (Begin 6/83) Screen (Begin 6/83)
2	517-0021	1	Plug, Button	9	821-0010	2	Screw, Tapping - Hex Head (1/4-20 x 1/2")
3	134-3617	1	Housing, Air - Cylinder (Left Side)	10	821-0010	4	Screw, Tapping - Hex Head (1/4-20 x 1/2")
4	134-3618	1	Housing, Air - Cylinder (Right Side)	11	821-0010	5	Screw, Cap - Hex Washer Head (1/4-20 x 3/8")
5	134-2761	1	Scroll, Air Side Mounted Units (Includes Guard) Prior to 6/83	12	821-0009	3	Screw, Self-locking - Hex Head (1/4-20 x 3/8" Lg)
	134-2749	1	Without Guard (Begin 6/83)	13	815-0261	6	Screw, Tapping - Hex Head (1/4-20 x 7/16" Lg)
	134-4150	1	Over the Rail Units (Without Guard)	14	134-4129	1	Extension, Scroll - Over the Rails Units
6	134-3119	1	Cover, Scroll	403-1523-01		2	Bracket, Lifting (Not Shown) Begin Spec R
7	134-2747	1	Backplate, Scroll				

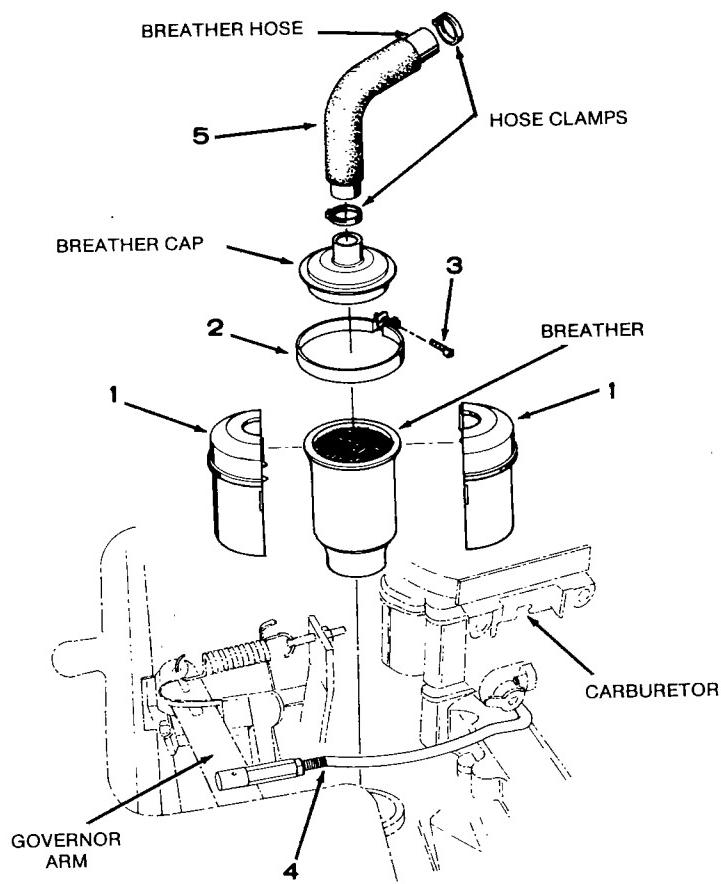
Fuel Tank



XFS-1159

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	415-0504	2	Bracket and Gasket, Fuel Tank	10	856-0006	2	Washer, Lock - EIT (1/4")
2	415-0503	4	Gasket Only, Fuel Tank Bracket	11	800-1031	6	Screw, Cap - Hex Head (5/16-18 x 1-1/2")
3	415-0500	1	Tank, Fuel (Includes Filler Cap and Gauge)	12	850-0045	6	Washer, Lock - Spring (5/16")
4	502-0758	1	Connector, Female (37°)	13	856-0008	1	Washer, Lock - EIT (5/16")
5	502-0745	1	Union, Bulkhead	14	502-0356	1	Elbow, Inlet - Fuel Pump
6	501-0356	1	Line, Fuel	15	867-1004	1	Nut, Hex (7/16-20)
7	336-7294	1	Strap, Ground	16	415-0533	1	Cap, Tank - Fuel
8	800-1007	1	Screw, Cap - Hex Head (1/4-20 x 1")	17	415-0534	1	Gauge, Fuel
9	862-1001	1	Nut, Hex (1/4-20)	18	415-0535	1	Pick Up, Tank - Fuel

Breather Insulation



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
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1	123-0998	2	Insulator, Breather
2	518-0268	1	Clamp, Breather
3	809-0035	1	Screw, RH (#8 x 3/4")
4	150-0979	1	Rod, Governor Control
5	503-1189	1	Insulation, Breather Hose

Labels, Paint, Thread Sealant, and Gasket Kits

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
98-4461		1	Kit, Decal	145-0438		1	*Gasket, Carburetor Adapter
168-0190		1	Kit, Gasket - Carbon Removal (Includes Parts Marked +)	122-0774		1	*Gasket, Adapter - Oil Filter
110-3136	2	+Gasket, Guide - Valve		123-1470		1	*Gasket, Cap - Oil Fill
110-2987	2	+Gasket, Head - Cylinder		149-0003		1	*Gasket, Pump - Fuel
110-3575	3	+Gasket, Cover - Valve		154-0733		1	*Gasket, Adapter to Carburetor
110-3604	2	+Seal, Oil (Valve)		154-2800		2	*Gasket, Manifold - Exhaust
154-2061	2	+Gasket, Manifold/Muffler - Exhaust		154-2219		2	*Gasket, Manifold - Intake
154-2219	2	+Gasket, Manifold - Intake		154-2747		2	*Gasket, Manifold - Exhaust
154-2542	1	+Gasket, Manifold/Muffler - Exhaust		160-1368		1	*Gasket, Box - Breaker
154-2747	2	+Gasket, Manifold - Exhaust		509-0008		1	*Seal, Oil (Gov. Shaft)
168-0191	1	Kit, Gasket - Engine Complete (Includes Parts Marked *)		509-0040		1	*Seal, Oil (Gearcase)
101-0782	1	*Gasket, Plate - Rear Bearing		509-0041		1	*Seal, Oil (Bearing Plate)
102-1387	1	*Gasket, Base - Oil		509-0117		1	*O-Ring, 1.75 OD, 1.50 ID
103-0810	1	*Gasket, Gearcase		509-0145		1	*O-Ring, Air Cleaner to Carburetor
110-2987	2	*Gasket, Head - Cylinder		525-0454		1	Paint, Touch-Up - Enamel (Greige) 13 Oz. Pressurized Can (Spec P)
110-3136	2	*Gasket, Guide - Valve		525-0305		1	Paint, Touch-Up - (Non- Metallic Green) - 13 oz. Pressurized Can (Spec R)
110-3575	3	*Gasket, Box - Valve		518-0452		1	Sealant, Thread (50cc Bottle)
110-3604	2	*Seal, Stem - Valve (11/32")		518-0347		1	Loctite, Bottle (250cc)
120-0161	1	*Kit, Gasket - Oil Pump					

+ - Parts Included in 168-0190 Gasket Kit.

* - Parts Included in 168-0191 Gasket Kit.

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